JAN

Access DB# 97578

SEARCH REQUEST FORM

RECEIVED

Scientific and Technical Information Center

JUL -2 2003

Requester's Full Name: R GITOMER Examiner #: 66674 (STIC) Date: 7/2/03

Art Unit: 1651 Phone Number 308-0732 Serial Number: 09/421,545

Mail Box and Bldg/Room Location: 11 561 Results Format Preferred (circle): PAPER DISK E-MAIL

11 D11

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched: Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

JAN

PRIORITY DATE 7/10/1998

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

****

STAFF USE ONLY

Searcher: JA

Searcher Phone #: 4498

Searcher Location: _____

Date Searcher Picked Up: 7/6/03

Date Completed: 7/6/03

Searcher Prep & Review Time: _____

Clerical Prep Time: 20

Online Time: 1 10

Type of Search		Vendors and cost where applicable	
NA Sequence (#)		STN	✓
AA Sequence (#)		Dialog	
Structure (#)	✓	Questel/Orbit	
Bibliographic		Dr.Link	
Litigation		Lexis/Nexis	
Fulltext		Sequence Systems	
Patent Family		WWW/Internet	
Other		Other (specify)	

PTO-1590 (8-01)

STIC SEARCH RESULTS

Biotech-Chem Library

Questions about the scope or the results of the search? Contact ***the searcher or contact:***

Mary Hale, Information Branch Supervisor
308-4258, CM1-1E01

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1610*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

  Types of relevant prior art found:
  - ☐ Foreign Patent(s)
  - ☐ Non-Patent Literature
    (journal articles, conference proceedings, new product announcements etc.)
- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/Biotech-Chem Library CM1 – Circ. Desk

```
=> d his

     (FILE 'HOME' ENTERED AT 12:56:18 ON 06 JUL 2003)
               SET COST OFF

     FILE 'HCAPLUS' ENTERED AT 12:56:30 ON 06 JUL 2003
               E PEPTIDE/CW
L1          206 S E3,E4 (L) ALDEHYD?
               E PEPTIDE/CT
               E E4+ALL
L2           79 S E2
               E PEPTIDE/CT
               E E87+ALL
L3          382 S E1+NT (L) ALDEHYD?
L4         3544 S ?PEPTID?(S)?ALDEHYD?
L5         6495 S ?PEPTID?(L)?ALDEHYD?
L6         6648 S L1-L5

     FILE 'REGISTRY' ENTERED AT 12:59:12 ON 06 JUL 2003
L7              STR
L8              SCR 2039 OR 2127 OR 2079 OR 2050 OR 2049 OR 2048 OR 2053 OR 205
L9            8 S L7 NOT L8
L10             STR L7
L11          11 S L10 NOT L8 SAM

     FILE 'HCAPLUS' ENTERED AT 13:02:36 ON 06 JUL 2003
L12        5177 S L6 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L13        5177 S L12 OR L12
L14        2600 S L13  RAN=(114:178449,)
L15        2577 S L12  RAN=(,114:164824)

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L16         SEL L14 1- RN :   50448 TERMS
               SET SMARTSELECT OFF

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L17       50448 S L16

     FILE 'HCAPLUS' ENTERED AT 13:07:27 ON 06 JUL 2003
L18        1800 S L13  RAN=(121:180233,)
L19        1800 S L13  RAN=(102:147004,121:180227)
L20        1577 S L13  RAN=(,102:145205)

     FILE 'REGISTRY' ENTERED AT 13:08:48 ON 06 JUL 2003

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L21         SEL L18 1- RN :   50448 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:09:16 ON 06 JUL 2003
L22       50448 S L21

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               SET SMARTSELECT ON
L23         SEL L19 1- RN :   19719 TERMS
               SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:12:26 ON 06 JUL 2003
L24       19718 S L23
```

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 1E07 – 703-308-4498
jan.delaval@uspto.gov

```
     FILE 'HCAPLUS' ENTERED AT 13:13:24 ON 06 JUL 2003
                SET SMARTSELECT ON
L25          SEL L20 1- RN :    5616 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:14:09 ON 06 JUL 2003
L26          5616 S L25

     FILE 'HCAPLUS' ENTERED AT 13:14:47 ON 06 JUL 2003
L27          1471 S L6 NOT L12

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L28          SEL L27 1- RN :   47928 TERMS
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     FILE 'REGISTRY' ENTERED AT 13:19:15 ON 06 JUL 2003
L29         47928 S L28

     FILE 'HCAPLUS' ENTERED AT 13:21:51 ON 06 JUL 2003
L30          1800 S L6 NOT L19,L20,L27
                SEL DN L30 1-300
L31           301 S L30 AND E1-E301
                SEL DN L30 301-600
L32           293 S E302-E593
                SEL DN L30 601-1000
L33           390 S E594-E983
                SEL DN L30 1001-1500
                DEL SEL
                SEL DN L30 1001-1450
L34           435 S E1-E434
                SEL DN L30 1451-1800
L35           348 S E435-E782
L36            37 S L30 NOT L31-L35

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L37          SEL L31 1- RN :   22149 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:30:41 ON 06 JUL 2003
L38         22149 S L37

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L39          SEL L32 1- RN :   13263 TERMS
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L40         13263 S L39

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                SET SMARTSELECT ON
L41          SEL L33 1- RN :   12469 TERMS
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     FILE 'REGISTRY' ENTERED AT 13:32:51 ON 06 JUL 2003
L42         12469 S L41
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L43           SEL L34 1- RN :   19503 TERMS
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L44         19502 S L43

     FILE 'HCAPLUS' ENTERED AT 13:34:36 ON 06 JUL 2003
                SET SMARTSELECT ON
L45           SEL L35 1- RN :    9628 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:34:49 ON 06 JUL 2003
L46          9628 S L45

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                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:35:16 ON 06 JUL 2003

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                SET SMARTSELECT ON
                SET SMARTSELECT OFF

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     FILE 'HCAPLUS' ENTERED AT 13:35:48 ON 06 JUL 2003
                E MUNDY G/AU
L47           272 S E3,E6,E8-E10
                E GARRETT I/AU
L48            59 S E3-E7
                E GARRETT R/AU
L49            55 S E3
                E ROSS G/AU
                E ROSSINI G/AU
L50            87 S E3-E17
                E OSTEOSCRE/PA,CS
L51            19 S E5-E16
                E GARRETT ROSS/AU
L52             7 S E3,E4
L53           444 S L47-L52

     FILE 'REGISTRY' ENTERED AT 13:38:32 ON 06 JUL 2003

     FILE 'HCAPLUS' ENTERED AT 13:38:32 ON 06 JUL 2003
                SET SMARTSELECT ON
L54           SEL L53 1- RN :    1201 TERMS
                SET SMARTSELECT OFF

     FILE 'REGISTRY' ENTERED AT 13:38:45 ON 06 JUL 2003
L55          1201 S L54
L56        130492 S L17,L22,L24,L26,L29,L38,L40,L42,L44,L46,L55
L57             8 S L7 SAM SUB=L56
L58          3516 S L7 FUL SUB=L56
                SAV L58 GITOMER421/A

     FILE 'HCAPLUS' ENTERED AT 13:42:38 ON 06 JUL 2003
L59         11447 S L58
L60          9386 S L59 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)
L61         13990 S L12,L60
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L62           2 S L61 AND L53
L63           5 S L6,L59 AND L53
L64           5 S L62,L63

     FILE 'REGISTRY' ENTERED AT 13:44:21 ON 06 JUL 2003
L65           1 S 140879-24-9

     FILE 'HCAPLUS' ENTERED AT 13:45:19 ON 06 JUL 2003
L66        3994 S L65
L67        6554 S PROTEASOM? OR MULTICATALY?(L)(PROTEASE OR PROTEINASE)
L68        1713 S (PROTEASE OR PROTEASOM?)(L)(26S OR 20S OR 26 S OR 20 S)
L69        6674 S L66-L68
L70         159 S L61 AND L69
               E BONE/CT

     FILE 'HCAPLUS' ENTERED AT 13:50:19 ON 06 JUL 2003
L71       49459 S E3-E68
L72       82798 S E3+NT OR E82+NT OR E91+NT
L73       37593 S E115 OR E116+NT
L74        4224 S E122-E127,E129,E130
L75         383 S E154+NT
L76        3548 S E163+NT
L77       68785 S E177+NT OR E187 OR E188+NT
L78       13351 S E229 OR E230 OR E231+NT OR E237
               E E3+ALL
L79        6956 S E9
               E E40+ALL
L80        3238 S E3
               E E 8+ALL
               E BONE/CT
               E E3+ALL
               E E41+ALL
L81         738 S E9,E10,E8+NT
               E E16+ALL
               E E42+ALL
L82        1665 S E10,E9+NT
               E E18+ALL
               E E36+ALL
L83        4713 S E4+NT
               E E8+ALL
L84         424 S E6,E7,E5+NT
               E E25+ALL
L85        3890 S E4,E5,E6,E3+NT
               E E23+ALL
               E BONE/CT
               E E188+ALL
L86       64126 S E4,E5,E3+NT
               E BONE DEMINERALIZATION/CT
               E E3+ALL
L87        1005 S E2
               E JOINT/CT
               E E6+ALL
L88        9401 S E6,E5+NT
               E PERIODONT/CT
               E E11+ALL
L89        7343 S E8+NT
L90         285 S L61 AND L71-L89
L91         260 S L61 AND (BONE OR ?OSTEO? OR ?OESTEO?)
L92           9 S L61 AND FRACTUR?
L93          36 S L61 AND (?RESORB? OR ?RESORP?)
L94          52 S L61 AND ?MINERAL?
L95          34 S L90,L91 AND L92-L94
L96        1847 S L59(L)THU/RL
```

```
L97         3364 S L59(L)(PAC OR PKT OR BAC OR USES OR DMA)/RL
L98           79 S L96,L97 AND L70
L99          118 S L96,L97 AND L90-L95
L100        3571 S L61 AND (PHARMACEUT? OR PHARMACOL? OR BIOMOL?)/SC,SX
L101          52 S L100 AND L70
L102         204 S L100 AND L90-L95
L103         533 S L90-L95,L98,L99,L101,L102
L104         134 S L103 AND P/DT
L105          78 S L104 AND US/PC
L106         149 S L103 AND (BONE# OR OSTEO?)/CW
L107          39 S L105 AND L106
L108          27 S L107 NOT MARROW/CW
                 SEL DN AN 7 8 23 24
L109           4 S L108 AND E1-E12
L110          35 S L107 NOT L109
                 SEL DN AN 22 23 27
L111           3 S E13-E21 AND L110
L112          11 S L64,L109,L111
L113          20 S L108 NOT L112
                 SEL DN AN 12 17 20
L114           3 S E22-E30
                 SEL DN AN L112 7-9
                 DEL SEL
                 SEL DN AN L112 6-9
L115           7 S L112 NOT E1-E12
L116          10 S L114,L115
L117          38 S L105 NOT L107-L116
L118          56 S L104 NOT L105,L107-L117
L119          26 S L118 AND L106
                 SEL DN AN 9 13 18-23
L120           8 S E13-E36
L121          18 S L116,L120
L122          30 S L118 NOT L119-L121
L123          18 S L121 AND L1-L6,L12-L15,L18-L20,L27,L30-L36,L47-L53,L59-L64,L6
L124          17 S L123 AND (BONE OR ?OESTEO? OR ?OSTEO? OR ?OSSO? OR ?OSSEO? OR
L125          18 S L123,L124

=> fil reg
FILE 'REGISTRY' ENTERED AT 14:36:17 ON 06 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    4 JUL 2003  HIGHEST RN 542812-68-0
DICTIONARY FILE UPDATES:   4 JUL 2003  HIGHEST RN 542812-68-0

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> d l7
L7 HAS NO ANSWERS
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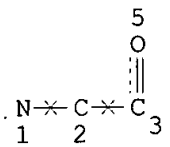
L7 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:36:57 ON 06 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 6 Jul 2003 VOL 139 ISS 2
FILE LAST UPDATED: 4 Jul 2003 (20030704/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l125 all hitstr tot

L125 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN 2003:300906 HCAPLUS
DN 138:314540
TI Identification of specific modulators of **bone** formation using E3 ubiquitin ligases as targets
IN **Mundy, Gregory R.**; **Garrett, I. Ross**; Chen, Di
PA **Osteoscreen, Inc.**, **USA**
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-00
ICS A61K039-00; G01N033-567
CC 1-1 (Pharmacology)
Section cross-reference(s): 6
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 2003030924 A1 20030417 WO 2002-US33615 20021009
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2003092603 A1 20030515 US 2002-268374 20021009
PRAI US 2001-328300P P 20011009
US 2002-346742P P 20020107

AB The E3 ubiquitin ligases which are specific to ubiquitination of proteins relevant to **bone** formation are useful targets for protocols or compds. to ameliorate **bone** disorders. These ligases are .beta.-TrCP, Smurf1 and Smurf2.

ST **bone** formation modulator screening E3 ubiquitin ligase; beta TrCP inhibitor treatment **bone** disorder; Smurf1 inhibitor treatment **bone** disorder; Smurf2 inhibitor treatment **bone** disorder

IT **Bone morphogenetic proteins**
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(2, **proteasome** inhibition in relation to; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT Transcription factors
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(CBF (core-binding factor), Cbfa1, Smurf1 mediation of degrdn. of; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT Transcription factors
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(Gli3, **osteoblast** expression of **BMP**-2 in relation to; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT **Osteocalcins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Smad1 and mutant Smurf1 induction of; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Smad1, induction of alk. phosphatase activity and **osteocalcin** prodn. by; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT **Bone, disease**
(**defect**, inhibitors of E3 ubiquitin ligases for treatment of; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

IT **Osteoblast**
(differentiation, identification of agent enhancing; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

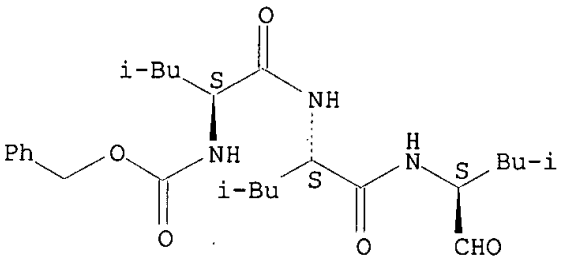
IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(for **BMP**-2, .beta.-TrCP redn. of activity of; screening for specific modulators of **bone** formation using E3 ubiquitin

ligases as targets)
IT Cell proliferation
(identification of agent enhancing **osteoblast**; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT **Osteoblast**
(identification of agent enhancing proliferation of; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(noggin, inhibition of **bone** formation induced by **proteasome** inhibitors; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT Cell differentiation
(**osteoblast**, identification of agent enhancing; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT **Bone formation**
Drug screening
Drug targets
(screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT 9001-78-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(Smad1 and mutant Smurf1 induction of; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT **140879-24-9, Proteasome**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor and **BMP**-2 expression; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT 134381-21-8, Epoxomicin
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**proteasome** inhibitor, **BMP**-2 expression in relation to; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT 133343-34-7, Lactacystin **133407-82-6**, MG-132
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**proteasome** inhibitor, Smurf1-induced Smad1 degrdn. inhibition by; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT 288049-06-9, GenBank AY01481 317316-05-5, GenBank AY14180
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
IT 74812-49-0, E3 Ubiquitin ligase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(.beta.-TrCP, Smurf1 and Smurf2; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) The Research Foundation Of State University Of New York; WO 0077168 A2 2000 HCAPLUS
(2) Von Bubnoff; Intracellular BMP Signaling Regulation in Vertebrates:Pathway or Network 2001, V239, P1 HCAPLUS
IT **140879-24-9, Proteasome**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitor and **BMP**-2 expression; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)

RN 140879-24-9 HCAPLUS
CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT **133407-82-6**, MG-132
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**proteasome** inhibitor, Smurf1-induced Smad1 degrdn. inhibition by; screening for specific modulators of **bone** formation using E3 ubiquitin ligases as targets)
RN 133407-82-6 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L125 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN 2002:483066 HCAPLUS
DN 137:41777
TI Inhibitors of NF-.kappa.B or **proteasomal** activity for stimulating hair growth
IN **Mundy, Gregory R.; Garrett, I. Ross; Rossini, G.**
PA **Osteoscreen, Inc., USA**
SO U.S., 9 pp., Cont.-in-part of U. S. Ser. No. 113,947.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM A61K038-00
NCL 514012000
CC 1-12 (**Pharmacology**)
FAN.CNT 3

	PATENT NO.	KIND	DATE		APPLICATION NO.	DATE	
PI	US 6410512	B1	20020625		US 1999-361775	19990727	<--
	US 6462019	B1	20021008		US 1998-113947	19980710	<--
	US 2002103127	A1	20020801		US 2002-50425	20020115	<--
	US 2002107203	A1	20020808		US 2002-52832	20020115	<--
	US 2002111292	A1	20020815		US 2002-50633	20020115	<--
PRAI	US 1998-113947	A2	19980710	<--			
	US 1999-361775	A1	19990727				
	US 1999-421545	A2	19991020				
	US 2000-695807	A3	20001023				

AB Compds. that inhibit the activity of NF-.kappa.B or inhibit the activity of the **proteasome** or both promote hair growth and stimulate the prodn. of hair follicles and are thus useful in stimulating hair growth, including hair d., in subjects where this is desirable.
ST **proteasome** inhibitor hair growth stimulation; NFkappaB inhibitor hair growth stimulation
IT Human
(NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Leukemia inhibitory factor
Platelet-derived growth factors
Transforming growth factors
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth, and use with other agents)

IT Chemotherapy
(alopecia from; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Temperature
(cold, protection from; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Hair
(follicle; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Alopecia
(from chemotherapy; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Disease, animal
(genetic; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Skin
(growth or infiltration, agents promoting; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth, and use with other agents)

IT Hair preparations
(growth stimulants; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Aging, animal
(hair thinning from; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Alopecia
(male pattern; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT Hair
(thinning, aging-related; NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT **158442-41-2**
RL: **PAC (Pharmacological activity); THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

IT 9002-64-6, Parathyroid hormone 61912-98-9, Insulin-like growth factor 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth, and use with other agents)

IT 438573-00-3 438573-01-4
RL: PRP (Properties)
(unclaimed sequence; inhibitors of NF-.kappa.B or **proteasomal** activity for stimulating hair growth)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

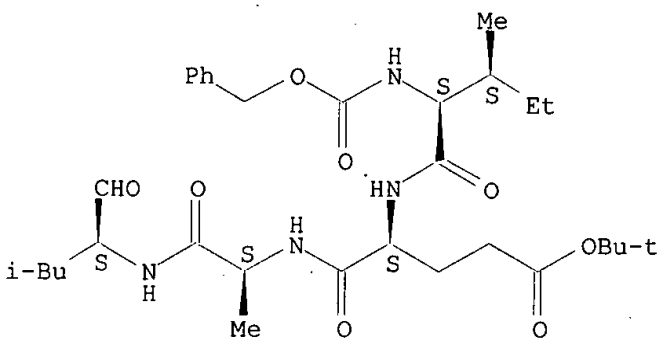
RE

(1) Anon; WO 9718239 1997 HCAPLUS
(2) Anon; WO 9943346 1999 HCAPLUS
(3) Fenteany; US 6147223 A 2000 HCAPLUS

IT **158442-41-2**
RL: **PAC (Pharmacological activity); THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(NF-.kappa.B inhibitor or **proteasomal** activity inhibitor for stimulating hair growth)

RN 158442-41-2 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN 2001:300537 HCAPLUS
DN 134:331618
TI Inhibitors of **proteasomal** activity for stimulating **bone** and hair growth
IN **Mundy, Gregory R.; Garrett, Ross I.; Rossini, G.**
PA **Osteoscreen, Inc., USA**
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-06
ICS A61K038-07; A61K038-13; A61K031-165; A61K031-365; A61K031-4015; A61K031-522; A61P019-00; A61P043-00
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 62
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028579	A2	20010426	WO 2000-US41360	20001020
	WO 2001028579	A3	20010920		
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1221962	A2	20020717	EP 2000-984583	20001020
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI	US 1999-421545	A	19991020		
	US 2000-558973	A	20000425		
	WO 2000-US41360	W	20001020		

AB Compds. that inhibit the activity of NF-.kappa.B or inhibit the activity of the **proteasome** or both promote **bone** formation and hair growth and are thus useful in treating **osteoporosis**, **bone fracture** or deficiency, primary or secondary hyperparathyroidism, periodontal disease or defect, metastatic **bone** disease, **osteolytic bone** disease, post-plastic surgery, post-prosthetic **joint** surgery, and post-dental implantation; they also stimulate the prodn. of hair follicles and are thus useful in stimulating hair growth, including hair d., in subject where this is desirable. N-carbobenzyol-Ile-Glu-(OtBu)Ala-Leu-CHO

(PSI) in 50% propylene glycol, 10% DMSO, and 40% water was injected daily for 5 days (1mg/kg body wt./day) into the s.c. tissue of mice and the tissue was examd. histol. 16 days later. The no. of hair follicles increased and the downward extension of these hair follicles into the dermal tissue was noted, which are hallmarks of anagen. There was an obvious increase in size of the follicle diam. and the root sheath diam.

ST **proteasome** inhibitor hair **bone** growth stimulant

IT Transcription factors
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(I.kappa.B (inhibitor of NF-.kappa.B); inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Periodontium**
Tooth
(disease; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Hair
(follicle; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone, disease**
(**fracture**; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone**
Hair preparations
(growth stimulants; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Dental materials and appliances
(implants; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone formation**
(inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone morphogenetic proteins**
Estrogens
Growth factors, animal
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone, disease**
(metastatic and **osteolytic**; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Growth factors, animal
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**osteogenins**; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Surgery
(post-plastic; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Hyperparathyroidism
(secondary; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Joint, anatomical**
(surgery of; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Osteoporosis**
(therapeutic agents; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT 13598-36-2D, Phosphonic acid, alkylidenebis- derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bisphosphonate; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT 67-99-2, Gliotoxin 404-86-4, Capsaicin 6493-05-6, PTX 9035-81-8, Trypsin inhibitor 25769-03-3, PDTC 59865-13-3, Cyclosporin a 65240-86-0, PPM 18 79902-63-9, Simvastatin **110044-82-1** **110115-07-6** 133343-34-7, Lactacystin **133407-82-6**, MG 132 **133407-86-0**, MG 115 134381-21-8, Epoxomicin **158442-41-2D**, PSI, epoxides 179324-22-2, MG 262 179324-69-7, PS 341 336099-20-8 336099-21-9 336608-38-9, Bay 11-7082
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

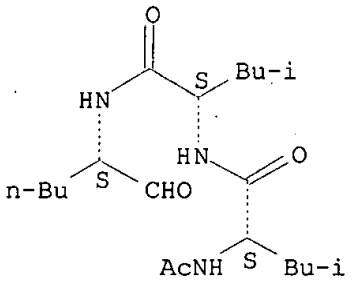
IT 9028-35-7, NADPH-hydroxymethylglutaryl-CoA reductase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors, statins; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **140879-24-9, Proteasome**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **110044-82-1 110115-07-6 133407-82-6**, MG 132 **133407-86-0**, MG 115 **158442-41-2D**, PSI, epoxides
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

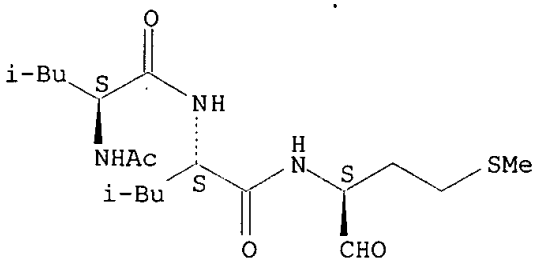
RN 110044-82-1 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formylpentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



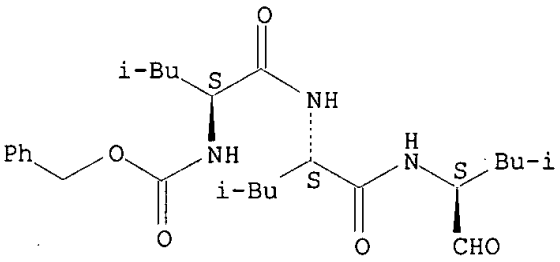
RN 110115-07-6 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formyl-3-(methylthio)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



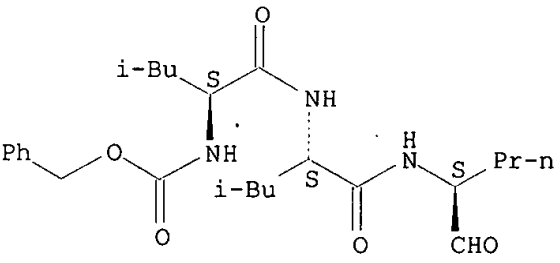
RN 133407-82-6 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



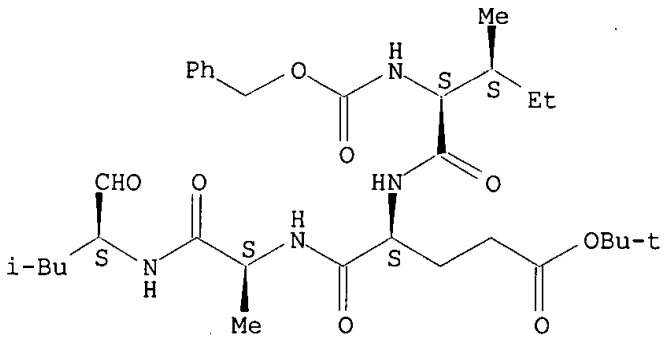
RN 133407-86-0 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 158442-41-2 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **140879-24-9, Proteasome**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)
RN 140879-24-9 HCAPLUS
CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L125 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN 2000:741943 HCAPLUS
DN 133:291099
TI Treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors
IN **Mundy, Gregory R.**
PA **Osteoscreen, Inc., USA**
SO PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K038-04
ICS A61K031-40; A61K031-166; A61P019-08
CC 1-6 (Pharmacology)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000061167	A2	20001019	WO 2000-US9121	20000407
	WO 2000061167	A3	20010111		
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6492333	B1	20021210	US 1999-289229	19990409
	EP 1169049	A2	20020109	EP 2000-921764	20000407
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002541206	T2	20021203	JP 2000-610499	20000407
PRAI	US 1999-289229	A	19990409		
	WO 2000-US9121	W	20000407		

AB The present invention involves the identification and use of compns. for treating myeloma **bone** disease. The compns. inhibit **proteasomal** activity and decrease the activity of the transcription factor NF-.kappa.B. Assessment of a candidate compd. for its ability to inhibit prodn. or activity of **proteasomal** enzymes or NF-.kappa.B provides a useful means to identify agents to treat myeloma **bone** disease.
ST **bone** myeloma therapy **proteasome** NFkappaB inhibitor; **proteasome** inhibitor **bone** myeloma therapy; NF kappaB inhibitor **bone** myeloma therapy

IT Transcription factors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(NF-.kappa.B (nuclear factor .kappa.B); treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

IT Antitumor agents
(multiple myeloma; treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

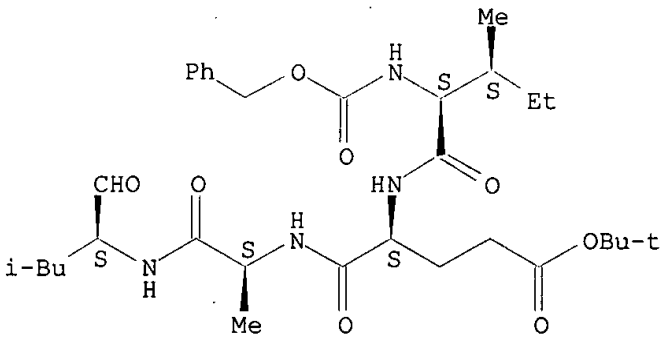
IT 5108-96-3 65240-86-0, Ppm-18 **158442-41-2**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

IT **140879-24-9, Proteasome**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

IT **158442-41-2**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

RN 158442-41-2 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **140879-24-9, Proteasome**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(treatment of myeloma **bone** disease with **proteasomal** and NF-.kappa.B activity inhibitors)

RN 140879-24-9 HCAPLUS
CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L125 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **2000:53374** HCAPLUS
DN **132:102860**
TI Inhibitors of **proteasomal** activity for stimulating **bone** and hair growth
IN **Mundy, Gregory R.; Garrett, I. Ross; Rossini,**

G.
PA **Osteoscreen, USA**
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT **Patent**
LA English
IC ICM A61K031-00
CC 1-12 (**Pharmacology**)
Section cross-reference(s): **63**
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000002548	A2	20000120	WO 1999-US15533	19990709 <--
	WO 2000002548	A3	20030417		
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SD, SG, SI, SK, TR, TT, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6462019	B1	20021008	US 1998-113947	19980710 <--
	CA 2337988	AA	20000120	CA 1999-2337988	19990709 <--
	AU 9963109	A1	20000201	AU 1999-63109	19990709 <--
	EP 1096924	A1	20010509	EP 1999-933827	19990709 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	US 1998-113947	A1	19980710 <--		
	WO 1999-US15533	W	19990709		

AB Compds. that inhibit the activity of NF-.kappa.B or inhibit the activity of the **proteasome** or both promote **bone** formation and hair growth and are thus useful in treating **osteoporosis**, **bone fracture** or deficiency, primary or secondary hyperparathyroidism, periodontal disease or defect, metastatic **bone** disease, **osteolytic bone** disease, post-plastic surgery, post-prosthetic **joint** surgery, and post-dental implantation. They also stimulate the prodn. of hair follicles and are thus useful in stimulating hair growth, including hair d., in subject where this is desirable.

ST hair **bone** growth stimulation NFkappaB inhibitor; **proteasome** inhibitor hair **bone** growth stimulation

IT Transcription factors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(NF-.kappa.B (nuclear factor .kappa.B); NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone formation**
Drug delivery systems
Drug screening
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone morphogenetic proteins**
Estrogens
Growth factors, animal
Hormones, animal, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT Antitumor agents

(**bone**, metastasis; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Skull**
(calvarium, calvarial **bone** growth assay; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Cartilage**
(**cartilage**-derived morphogenetic proteins; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT **Joint, anatomical**
(**degeneration**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Disease, animal
(dental; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Periodontium**
(disease; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Hair
(follicle; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone, disease**
(**fracture**, and **bone** deficiency; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone**
(growth promoters; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT Hair preparations
(growth stimulants; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Dental materials and appliances
(implants, post-dental implantation; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Cell differentiation
(inducers; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT **Bone, neoplasm**
(inhibitors, **metastasis**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone, neoplasm**
(**metastasis**, inhibitors; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Proteins, specific or class
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(morphogenetic, **cartilage**-derived; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT Growth factors, animal
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**osteogenins**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT **Bone, disease**
(**osteolytic**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Isoprenoids
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(pathway; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Peptides, biological studies**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**peptidic aldehydes**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Aldehydes**, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**peptidyl**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Surgery
(plastic, post-plastic surgery; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Joint, anatomical**
Prosthetic materials and Prosthetics
(post-prosthetic **joint** surgery; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Hyperparathyroidism
(primary; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Proteins, specific or class
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**proteasome**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Bone**
(**resorption, inhibitors**; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT Hyperparathyroidism
(secondary; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT **Osteoporosis**
(therapeutic agents; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT Drug delivery systems
(topical; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT 67-99-2, Gliotoxin 404-86-4, Capsaicin 6493-05-6, Pentoxifylline 59865-13-3, Cyclosporin A 79902-63-9, Simvastatin 106096-93-9, Basic fibroblast growth factor **110044-82-1** **110115-07-6** 133343-34-7, Lactacystin **133407-82-6**, MG 132 **133407-86-0**, MG 115 **158442-41-2** 179324-22-2, MG 262

RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

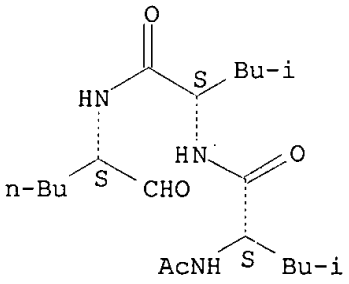
IT **140879-24-9, Proteasome**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

IT 13598-36-2D, Phosphonic acid, bisphosphonates
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(and statins; NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth, and use with other agents)

IT **110044-82-1 110115-07-6 133407-82-6**, MG 132
133407-86-0, MG 115 **158442-41-2**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)

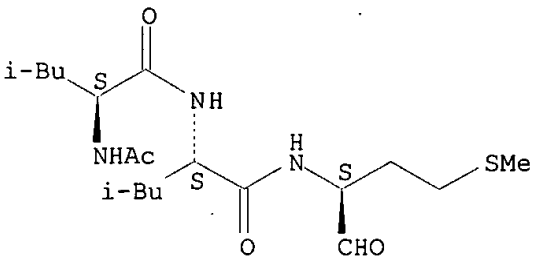
RN 110044-82-1 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formylpentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



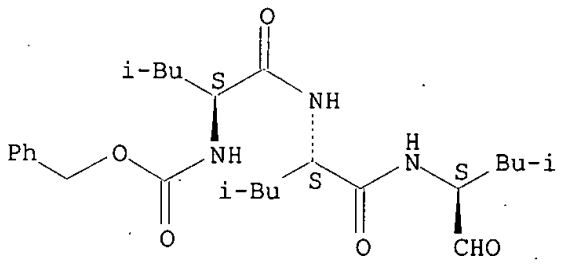
RN 110115-07-6 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formyl-3-(methylthio)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



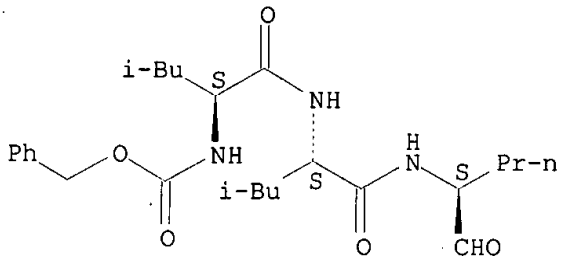
RN 133407-82-6 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



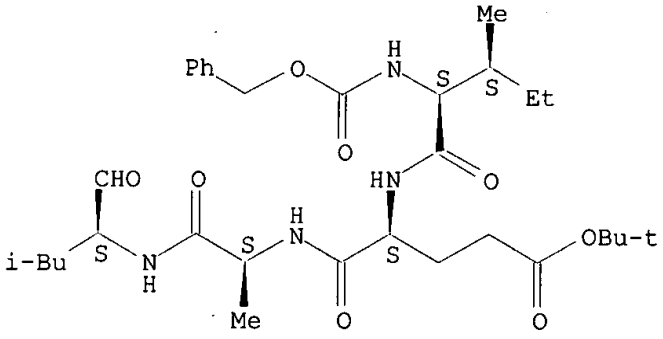
RN 133407-86-0 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 158442-41-2 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **140879-24-9, Proteasome**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(NF-.kappa.B inhibitors and inhibitors of **proteasomal** activity for stimulating **bone** and hair growth)
RN 140879-24-9 HCAPLUS
CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L125 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1999:583142** HCAPLUS

DN **131:223493**
TI Peptide derivatives for prevention or treatment of connective tissue disease
IN Matsuo, Konomi; Yamamoto, Minoru; Ikeda, Shoji
PA Kanebo, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM A61K045-00
ICS A61K038-00; C07C259-06
CC 1-7 (**Pharmacology**)
Section cross-reference(s): **63**
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11246436	A2	19990914	JP 1998-71445	19980304 <--
PRAI	JP 1998-71445		19980304 <--		

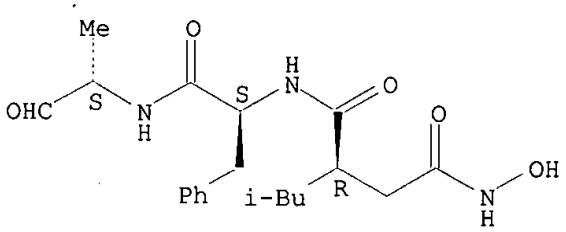
OS MARPAT 131:223493
AB Peptide derivs. such as [4-(N-hydroxyamino)-2-[R]-isobutylsuccinyl]-L-phenylalanyl-L-alaninal [prepns. given] as matrix metalloprotease and cathepsin for prevention or treatment of connective tissue disease are claimed. The compds. lowered the urinary hydroxyproline excretion in mice with **osteoporosis**. Capsules were formulated contg. [4-(N-hydroxyamino)-2-[R]-isobutylsuccinyl]-L-phenylalanyl-L-alaninal 100, lactose 35, corn starch 60 and magnesium stearate 5 wt. parts.
ST peptide deriv connective tissue disease
IT Drug delivery systems
(capsules; peptide derivs. for prevention or treatment of connective tissue disease)
IT Connective tissue
(disease; peptide derivs. for prevention or treatment of connective tissue disease)
IT Drug delivery systems
(injections; peptide derivs. for prevention or treatment of connective tissue disease)
IT **Osteoporosis**
(peptide derivs. for prevention or treatment of connective tissue disease)
IT Drug delivery systems
(tablets; peptide derivs. for prevention or treatment of connective tissue disease)
IT 9004-08-4, Cathepsin 141907-41-7, Matrix metalloprotease
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibitors; peptide derivs. for prevention or treatment of connective tissue disease)
IT 50-30-6, 2,6-Dichlorobenzoic acid 3918-87-4, L-Phenylalanyl-L-alanine 6638-79-5 30189-51-6 60644-13-5 115363-74-1 162117-96-6 244021-38-3 244021-40-7 244021-43-0 244021-44-1 244021-45-2 244021-46-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide derivs. for prevention or treatment of connective tissue disease)
IT 244021-29-2P 244021-30-5P 244021-31-6P 244021-32-7P 244021-33-8P 244021-34-9P 244021-35-0P 244021-37-2P 244021-41-8P 244021-42-9P 244021-47-4P 244021-48-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(peptide derivs. for prevention or treatment of connective tissue disease)
IT **244021-20-3P 244021-21-4P 244021-22-5P**

244021-23-6P 244021-24-7P 244021-25-8P 244021-26-9P
244021-27-0P 244021-28-1P
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(peptide derivs. for prevention or treatment of connective tissue disease)

IT **244021-20-3P 244021-21-4P 244021-22-5P**
244021-23-6P
RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(peptide derivs. for prevention or treatment of connective tissue disease)

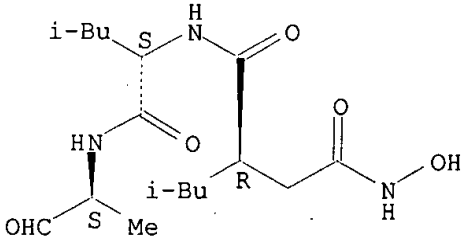
RN 244021-20-3 HCAPLUS
CN Butanediamide, N4-hydroxy-N1-[(1S)-2-[[(1S)-1-methyl-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-2-(2-methylpropyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



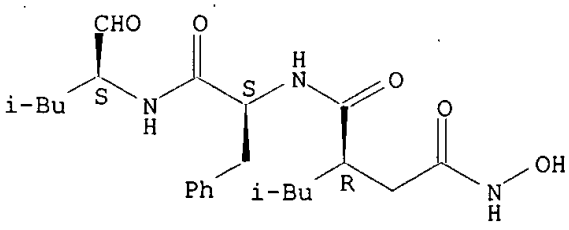
RN 244021-21-4 HCAPLUS
CN Butanediamide, N4-hydroxy-N1-[(1S)-3-methyl-1-[[[(1S)-1-methyl-2-oxoethyl]amino]carbonyl]butyl]-2-(2-methylpropyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



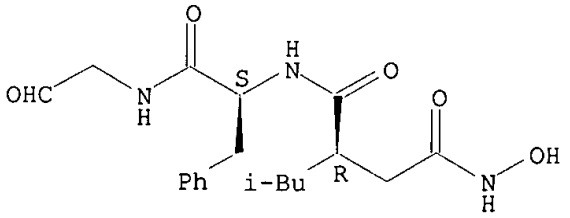
RN 244021-22-5 HCAPLUS
CN Butanediamide, N1-[(1S)-2-[[(1S)-1-formyl-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-N4-hydroxy-2-(2-methylpropyl)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 244021-23-6 HCAPLUS
CN Butanediamide, N4-hydroxy-2-(2-methylpropyl)-N1-[(1S)-2-oxo-2-[(2-oxoethyl)amino]-1-(phenylmethyl)ethyl]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1999:12304** HCAPLUS
DN **130:66800**
TI Preparation of D-amino acid derivatives as cysteine and serine protease inhibitors
IN Chatterjee, Sankar
PA Cephalon, Inc., USA
SO U.S., 43 pp., Cont.-in-part of U.S. Ser. No. 755,839,abandoned.
CODEN: USXXAM
DT **Patent**
LA English
IC ICM A61K031-27
ICS A61K031-195; A61K031-16; A61K031-40; A61K031-395; A61K031-445; C07D205-04; C07D207-16; C07D401-12; C07D401-06; C07D401-14; C07D333-16
NCL 514183000
CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **1**
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5852007	A	19981222	US 1997-795546	19970206 <--
PRAI	US 1996-755839	B2	19961126 <--		

OS MARPAT 130:66800
AB The compds. QC*(NR2R3)(R4)CONHC(R1)(R5)C(W1)(W2)Y [C* = carbon atom having a D-configuration; Q = GB(CHR20)q; R20 = H, alkyl; q = 0 -2; B = CO, etc.; G = aryl, etc.; R1 = H, alkyl, etc.; R2 = COR6, etc.; R6 = aryl, etc.; R3 = H, alkyl, etc.; further details on R2, R3, Q are given; R4, R5 = H, alkyl; W1 and W2 are selected such that W1 is H and W2 is O(CO)NHR26 where R26 is alkyl, or W1 and W2 are both alkoxy, or W1 is OH and W2 is selected from aralkyl, aralkyloxy, etc.; further details on W1 and W2 are given; Y = H, CH:N2, etc.; further details on Y and R1 are given] are prepd. Compds. of this invention in vitro showed IC50 values of 3 - 1000 nM against calpain I.
ST amino acid cysteine serine protease inhibitor; cysteine serine protease inhibitor amino acid
IT Nervous system
(Huntington's chorea; prepn. and therapeutic effect of D-amino acid derivs.)
IT Nervous system
(amyotrophic lateral sclerosis; prepn. and therapeutic effect of D-amino acid derivs.)
IT Bronchi
(bronchitis; prepn. and therapeutic effect of D-amino acid derivs.)
IT Alzheimer's disease

Asthma
Atherosclerosis
Cataract
Epilepsy
Hypertension
Inflammation
Muscular dystrophy
Nervous system agents
Parkinson's disease
Rheumatoid arthritis
Thrombosis
(prepn. and therapeutic effect of D-amino acid derivs.)

IT Ischemia
(prepn. and therapeutic effect of D-amino acid derivs. as cysteine and serine protease inhibitors)

IT **Bone**
(**resorption**; prepn. and therapeutic effect of D-amino acid derivs.)

IT Brain, disease
(stroke; prepn. and therapeutic effect of D-amino acid derivs.)

IT 192722-15-9P 192722-17-1P 192722-18-2P 192722-19-3P 192722-20-6P
192722-21-7P 192722-22-8P 192722-23-9P 192722-24-0P 192722-25-1P
192722-26-2P 192722-27-3P 192722-28-4P 192722-29-5P 192722-30-8P
192722-31-9P 192722-32-0P 192722-33-1P 192722-34-2P 192722-35-3P
192722-36-4P 192722-37-5P 192722-38-6P 192722-39-7P 192722-40-0P
192722-41-1P 192722-42-2P 192722-43-3P 192722-44-4P 192722-45-5P
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192722-56-8P 192722-57-9P 192722-58-0P 192722-59-1P
192722-60-4P 192722-61-5P 192722-62-6P 192722-63-7P 192722-64-8P
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192722-86-4P 192722-87-5P 192722-88-6P 192722-89-7P 192722-90-0P
192722-91-1P 192722-92-2P 192722-93-3P 192722-94-4P 192722-95-5P
192722-96-6P 192722-97-7P 192722-98-8P 192722-99-9P 192723-00-5P
192723-01-6P 192723-02-7P 192723-03-8P 192723-04-9P 192723-05-0P
192723-40-3P 192723-41-4P 218166-66-6P 218166-67-7P 218166-68-8P
218166-69-9P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation);
USES (Uses)
(prepn. of D-amino acid derivs. as cysteine and serine protease inhibitors)

IT 9002-04-4, Thrombin 9004-07-3, Chymotrypsin 78990-62-2, Calpain
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(prepn. of D-amino acid derivs. as cysteine and serine protease inhibitors)

IT 60-24-2 74-88-4, Methyl iodide, reactions 75-36-5, Acetyl chloride
80-48-8, Methyl p-toluenesulfonate 91-21-4 93-11-8,
2-Naphthalenesulfonyl chloride 98-09-9, Benzenesulfonyl chloride
98-59-9, p-Toluenesulfonyl chloride 98-88-4, Benzoyl chloride
100-51-6, Benzyl alcohol, reactions 103-67-3, N-Benzylmethylamine
110-70-3, N,N'-Dimethylethylenediamine 117-34-0, Diphenylacetic acid
121-60-8, 4-Acetamidobenzenesulfonyl chloride 124-63-0, Methanesulfonyl chloride 150-61-8, 1,2-Dianilinoethane 151-50-8, Potassium cyanide
153-94-6, D-Tryptophan 328-38-1, D-Leucine 344-25-2, D-Proline
349-88-2, 4-Fluorobenzenesulfonyl chloride 371-62-0, 2-Fluoroethanol
506-96-7, Acetyl bromide 563-41-7, Semicarbazide hydrochloride
593-56-6, Methoxyamine hydrochloride 594-44-5, Ethanesulfonyl chloride

673-06-3, D-Phenylalanine 875-74-1, D-Phenylglycine 1017-76-1
1117-97-1, Methoxymethylamine 1828-66-6, Morpholinosulfonyl chloride
1939-99-7, .alpha.-Toluenesulfonyl chloride 2021-58-1 2389-48-2
2584-71-6, cis-4-Hydroxy-(D)-proline 3182-95-4, (S)-Phenylalaninol
4229-44-1, N-Methylhydroxylamine hydrochloride 5153-67-3,
trans-.beta.-Nitrostyrene 5267-64-1 5470-11-1, Hydroxylamine
hydrochloride 6921-34-2, Benzylmagnesium chloride 7524-50-7
7533-40-6, (S)-Leucinol 10433-52-0 13139-17-8 13360-57-1,
Dimethylsulfamoyl chloride 13734-34-4 13893-55-5 16629-19-9,
2-Thiophenesulfonyl chloride 16937-99-8 17350-84-4,
D-.alpha.-Methylphenylalanine 18704-37-5, 8-Quinolinesulfonyl chloride
18942-49-9 21124-40-3 21568-87-6, L-.alpha.-Amino-.epsilon.-
caprolactam 24424-99-5 26628-22-8, Sodium azide 27894-50-4
28862-79-5 29601-98-7, N-Benzylhydroxylamine hydrochloride 34404-30-3
37784-17-1 47173-80-8 56545-22-3 57177-83-0 61090-95-7, D-Ala
63769-58-4 64889-57-2 69355-99-3 80466-79-1 82795-51-5
88398-93-0 92828-64-3 102830-49-9 112245-13-3 115962-35-1
133489-47-1 137049-00-4 192723-36-7 192723-37-8 192723-38-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of D-amino acid derivs. as cysteine and serine protease inhibitors)

IT 6125-24-2P 13033-84-6P 40279-94-5P 114968-96-6P 179538-60-4P
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192723-24-3P 192723-25-4P 192723-26-5P 192723-27-6P 192723-28-7P
192723-29-8P 192723-30-1P 192723-31-2P 192723-32-3P 192723-33-4P
192723-34-5P 192723-35-6P 192723-39-0P 218166-70-2P 218166-71-3P
218166-72-4P 218166-73-5P 218166-74-6P 218166-75-7P 218166-76-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of D-amino acid derivs. as cysteine and serine protease inhibitors)

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Anon; EP 0363284 A2 1990 HCAPLUS
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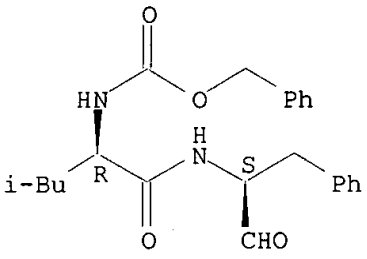
(37) Rasnick; US 4518528 1985 HCAPLUS
(38) Ruterbories; US 5436229 1995
(39) Siman; US 5536639 1996 HCAPLUS

IT **192722-56-8P**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of D-amino acid derivs. as cysteine and serine protease inhibitors)

RN 192722-56-8 HCAPLUS
CN Carbamic acid, [(1R)-1-[[[(1S)-1-formyl-2-phenylethyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1998:65811** HCAPLUS
DN **128:136515**
TI **Bone resorption** inhibitors
IN Aibe, Kazuhiko; Takebayashi, Yukihiro; Ishii, Yasutaka; Noshiro, Osamu; Noda, Ichio; Igarashi, Susumu
PA Yamanouchi Pharmaceutical Co., Ltd., Japan; Aibe, Kazuhiko; Takebayashi, Yukihiro; Ishii, Yasutaka; Noshiro, Osamu; Noda, Ichio; Igarashi, Susumu
SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DT **Patent**
LA Japanese
IC ICM A61K031-40
ICS A61K031-415; A61K031-42; A61K031-425; A61K031-445; A61K031-495; A61K031-535; A61K035-05; A61K035-06; A61K035-55; C07D207-16; C07D405-12; C07D413-12; C07D417-12; C07K005-078; C07K005-083
CC 1-10 (**Pharmacology**)
Section cross-reference(s): 27
FAN.CNT 1

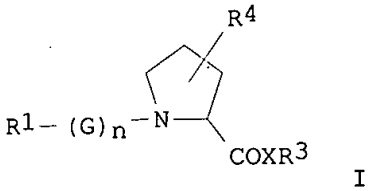
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9801133	A1	19980115	WO 1997-JP2357	19970708 <--

W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,

GN, ML, MR, NE, SN, TD, TG

AU 9733596 A1 19980202 AU 1997-33596 19970708 <--
PRAI JP 1996-177955 19960708 <--
WO 1997-JP2357 19970708 <--
OS MARPAT 128:136515

GI



I

AB Drugs, in particular, **bone resorption** inhibitors contg. as the active ingredient compds. having selective cathepsin K inhibitory effects, among all, proline derivs. represented by general formula (I) or pharmaceutically acceptable salts thereof, wherein each symbol has the meaning as specified below: X: a moiety (except for the C-terminal carbonyl group) of an amino acid residue with its side chain optionally protected; R1: an amino-protective group; G: a glycine residue; n: 0 or 1; R3: a group inhibiting the activity of the SH group of cysteine protease; and R4: hydrogen, hydroxy or Ph..

ST **bone resorption** inhibitor **antiosteoporotic** cathepsin k

IT **Bone**
(**resorption, inhibitors; bone resorption inhibitors**)

IT **Osteoporosis**
(therapeutic agents; **bone resorption** inhibitors)

IT 28607-59-2P **88105-67-3P** 202280-88-4P 202280-89-5P
202280-90-8P 202280-91-9P 202280-92-0P 202280-93-1P 202280-94-2P
202280-95-3P 202280-96-4P 202280-97-5P 202280-98-6P 202280-99-7P
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202281-10-5P 202281-11-6P 202281-12-7P 202281-13-8P 202281-14-9P
202281-15-0P 202281-16-1P 202281-17-2P 202281-18-3P 202281-19-4P
202281-20-7P 202281-21-8P 202281-22-9P 202281-23-0P 202281-24-1P
202281-25-2P 202281-26-3P 202281-27-4P 202281-28-5P 202281-29-6P
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202281-45-6P 202281-46-7P 202281-47-8P 202281-48-9P 202281-49-0P
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202281-55-8P 202281-56-9P 202281-57-0P 202281-58-1P 202281-59-2P
202281-60-5P 202281-61-6P 202281-62-7P 202281-63-8P 202281-64-9P
202281-65-0P 202281-66-1P 202281-67-2P 202281-68-3P 202281-69-4P
202281-70-7P 202281-71-8P 202281-72-9P 202281-73-0P 202281-74-1P
202281-75-2P 202281-76-3P 202281-77-4P 202281-78-5P 202281-79-6P
202281-80-9P 202281-81-0P 202281-82-1P 202281-83-2P 202281-84-3P
202281-85-4P 202281-86-5P 202281-87-6P 202281-88-7P 202281-89-8P
202281-90-1P 202281-91-2P 202281-92-3P 202281-93-4P 202281-94-5P
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202282-00-6P 202282-01-7P 202282-02-8P 202282-03-9P 202282-04-0P
202282-05-1P 202282-14-2P 202349-46-0P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(**bone resorption** inhibitors)

IT 94716-09-3, Cathepsin k
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**bone resorption** inhibitors)
IT 29019-64-5P 88084-14-4P 95924-71-3P 167168-06-1P 202282-06-2P 202282-07-3P 202282-08-4P 202282-09-5P 202282-10-8P 202282-11-9P 202282-12-0P 202282-13-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(**bone resorption** inhibitors)
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Fred, H; J Biol Chem 1996, V271(21), P12511
(2) Hoechst Marion Roussel Inc; WO 9720856 A1 1997 HCAPLUS
(3) Mary, J; J Biol Chem 1996, V271(21), P12517
(4) Syntex Inc; CA 1329862 A 1988 HCAPLUS
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(6) Syntex Inc; EP 272671 A 1988 HCAPLUS
(7) Syntex Inc; DE 3789371 A 1988
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(9) Syntex Inc; US 5158936 A 1988 HCAPLUS
(10) Syntex Inc; IE 62863 B 1988
(11) Syntex Inc; JP 63-253061 A 1988 HCAPLUS
(12) Syntex Inc; DK 8706743 A 1988 HCAPLUS
(13) Syntex Inc; ZA 8709577 A 1988 HCAPLUS
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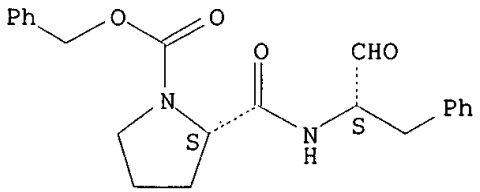
(15) Tetsuya, I; Biochem Biophys Res Commun 1995, V206(1), P89
(16) Toyo Jozo Co Ltd; CA 1188987 A 1983 HCAPLUS
(17) Toyo Jozo Co Ltd; GB 2095994 A 1983 HCAPLUS
(18) Toyo Jozo Co Ltd; FR 2509175 A 1983 HCAPLUS
(19) Toyo Jozo Co Ltd; DE 3207480 A 1983 HCAPLUS
(20) Toyo Jozo Co Ltd; US 4873087 1983 HCAPLUS
(21) Toyo Jozo Co Ltd; JP 57-146721 A 1983 HCAPLUS
(22) Toyo Jozo Co Ltd; JP 58-140026 A 1983 HCAPLUS
(23) Toyo Jozo Co Ltd; ES 2000602 A 1987 HCAPLUS
(24) Toyo Jozo Co Ltd; EP 212432 A 1987 HCAPLUS
(25) Toyo Jozo Co Ltd; DE 3685167 G 1987
(26) Toyo Jozo Co Ltd; US 4743677 A 1987 HCAPLUS
(27) Toyo Jozo Co Ltd; JP 62-129297 A 1987 HCAPLUS
(28) Yoshitomi Pharmaceutical Industries Ltd; JP 08-104698 A 1996 HCAPLUS
IT **88105-67-3P**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(**bone resorption** inhibitors)
RN 88105-67-3 HCAPLUS
CN 1-Pyrrolidinecarboxylic acid, 2-[[(1-formyl-2-phenylethyl)amino]carbonyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2003 ACS

AN **1996:443908** HCAPLUS
DN **125:115147**
TI Preparation of **peptide aldehyde** derivatives as cysteine protease inhibitors
IN Sohda, Takashi; Fujisawa, Yukio; Yasuma, Tsuneo; Mizoguchi, Junji
PA Takeda Chemical Industries, Ltd., Japan
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT **Patent**
LA English
IC ICM C07D209-16
ICS A61K031-40; A61K031-435; A61K038-05; C07D401-12; C07C311-19; C07K005-062
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **1**, **63**
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9610014	A1	19960404	WO 1995-JP1933	19950925 <--
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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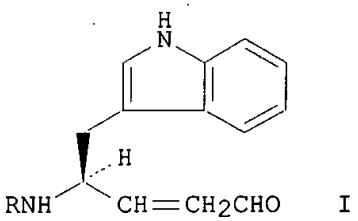
AU 9535341	A1	19960419	AU 1995-35341	19950925 <--
JP 08151355	A2	19960611	JP 1995-245957	19950925 <--
EP 783489	A1	19970716	EP 1995-932228	19950925 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				

PRAI JP 1994-231839 19940927 <--
WO 1995-JP1933 19950925 <--
OS MARPAT 125:115147
GI



I

AB The present invention relates to acylaminoaldehyde compds. of formula R4 -Q-NHCHR1-X-CHO [Q = one or two amino acid residual groups which may be substituted; R1 = hydrogen atom or an optionally substituted hydrocarbon or heterocyclic group; R4 = an optionally esterified carboxyl group or an acyl group; X = a optionally substituted straight-chain or branched divalent hydrocarbon group having a chain length of 1 to 4 atoms as the linear moiety], or salts thereof, which have strong cysteine protease inhibitory activities and are useful as prophylactic and therapeutic agent of various diseases, including **bone** diseases, caused by abnormal exasperation of cystine protease, are prepd. Thus, 2.4 g N-tert-butoxycarbonyl-L-phenylalanyl-L-tryptophanal and 1.76 g (formylmethylene)triphenylphosphorane were dissolved in 10 mL THF and 30 mL toluene and stirred for 15 h to give the title compd. (I; R = Boc-Phe). The latter compd. and I (R = PhCH2O2C-Leu-Leu) (II) in vitro showed IC50 of 3.5 .times. 10-8 and 9.7 .times. 10-9 M, resp., against cathepsin L and that of 2.4 .times. 10-6 and 9.7 .times. 10-7 M, resp., against cathepsin

B, resp. In a **bone resorption** inhibitory assay, they in vitro inhibited by 83 and 51%, resp., the Ca release from fetal rat's forearm **bones**. A gelatin capsule formulation contg. II was described.

ST **peptide aldehyde** prepn cysteine protease inhibitor; **bone** disease treatment **peptide aldehyde**; cathepsin inhibitor **bone resorption** inhibitor

IT **Bone, disease**
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption inhibitors** for treating **bone** diseases)

IT **178910-60-6P 178910-61-7P 178910-62-8P**
178910-63-9P 178910-64-0P 178910-65-1P
178910-66-2P 178910-67-3P 178910-68-4P
178910-69-5P 178910-70-8P **178910-71-9P**
178910-72-0P 178910-73-1P 178910-74-2P
178910-75-3P 178910-76-4P 178910-77-5P
178910-78-6P 178910-79-7P 178910-80-0P
178910-81-1P 178910-82-2P 178910-83-3P
178910-84-4P 178910-85-5P 178910-86-6P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

IT 7440-70-2, Calcium, biological studies 9047-22-7, Cathepsin B 37353-41-6, Cysteine protease 60616-82-2, Cathepsin L
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

IT 85-46-1, .alpha.-Naphthalenesulfonyl chloride 93-10-7, Quinoline-2-carboxylic acid 334-88-3, Diazomethane 2136-75-6, (Formylmethylene)triphenylphosphorane 13734-34-4 18704-37-5, Quinoline-8-sulfonyl chloride 58889-48-8, N-Benzyloxycarbonyl-L-tryptophanol 68762-05-0 161708-67-4 161709-03-1 178910-93-5 178910-95-7 178910-96-8 178910-97-9 178911-04-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

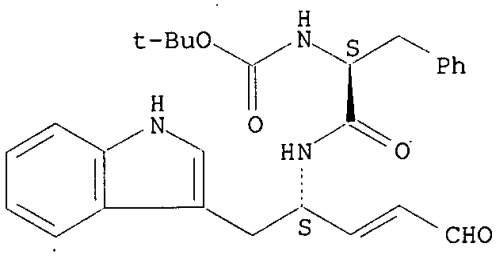
IT 2899-29-8P, L-Tryptophanol 161708-60-7P 161708-63-0P 161708-83-4P 161708-85-6P 161708-93-6P 161708-97-0P 161709-14-4P 161709-15-5P **161709-56-4P 161709-71-3P** 161709-73-5P **161709-82-6P 161709-86-0P 161710-03-8P** **161710-04-9P** 161710-44-7P 161710-45-8P **170589-66-9P** 178910-87-7P 178910-88-8P 178910-89-9P **178910-90-2P** **178910-91-3P** 178910-92-4P 178910-94-6P 178910-98-0P **178910-99-1P 178911-00-7P 178911-01-8P** **178911-02-9P** 178911-03-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

IT **178910-60-6P 178910-61-7P 178910-62-8P**
178910-63-9P 178910-64-0P 178910-65-1P
178910-66-2P 178910-67-3P 178910-68-4P
178910-69-5P 178910-71-9P 178910-72-0P
178910-73-1P 178910-74-2P 178910-75-3P

178910-76-4P 178910-77-5P 178910-78-6P
178910-79-7P 178910-80-0P 178910-81-1P
178910-82-2P 178910-83-3P 178910-84-4P
178910-85-5P 178910-86-6P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

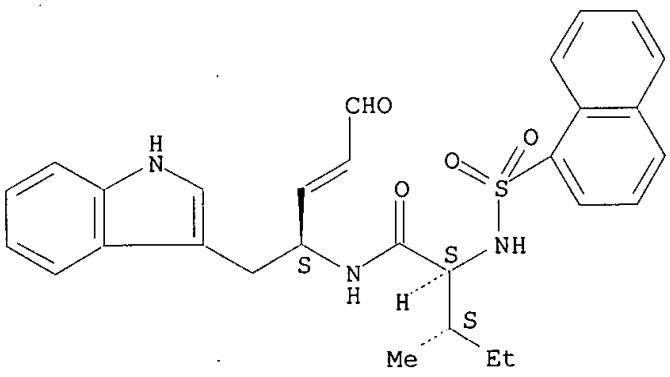
RN 178910-60-6 HCAPLUS
CN Carbamic acid, [2-[[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, 1,1-dimethylethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



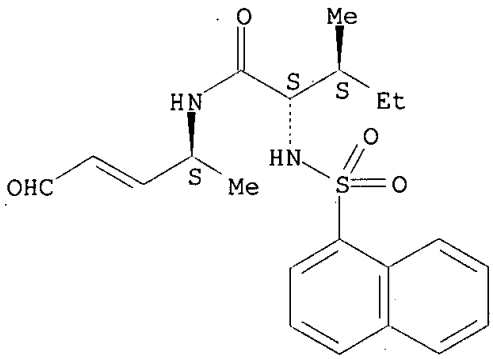
RN 178910-61-7 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



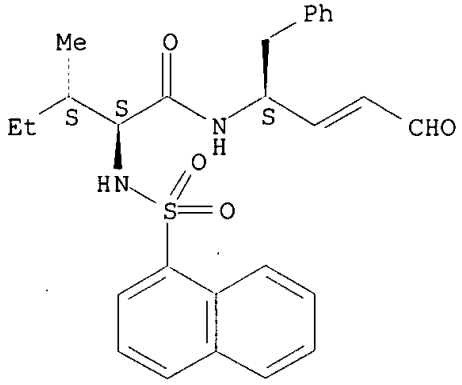
RN 178910-62-8 HCAPLUS
CN Pentanamide, 3-methyl-N-(1-methyl-4-oxo-2-butenyl)-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



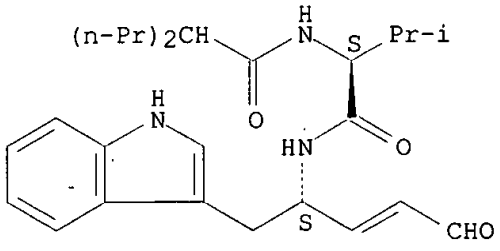
RN 178910-63-9 HCAPLUS
CN Pentanamide, 3-methyl-2-[(1-naphthalenylsulfonyl)amino]-N-[4-oxo-1-(phenylmethyl)-2-butenyl]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 178910-64-0 HCAPLUS
CN Pentanamide, N-[1-[[[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]amino]carbonyl]-2-methylpropyl]-2-propyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

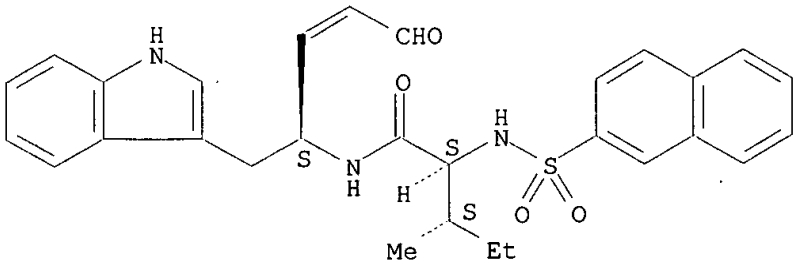
Absolute stereochemistry.
Double bond geometry unknown.



RN 178910-65-1 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]-3-methyl-2-[(2-naphthalenylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

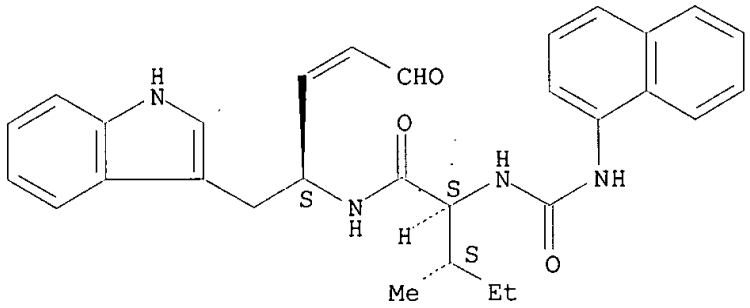
Absolute stereochemistry.

Double bond geometry unknown.



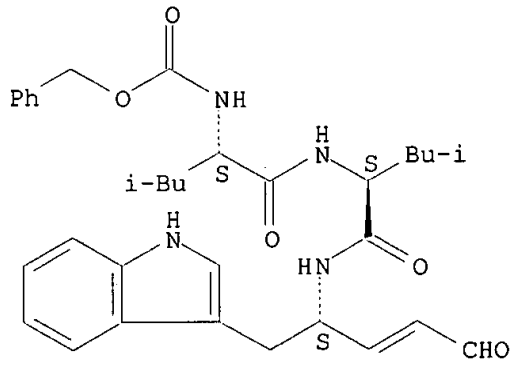
RN 178910-66-2 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]-3-methyl-2-[[(1-naphthalenylamino)carbonyl]amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



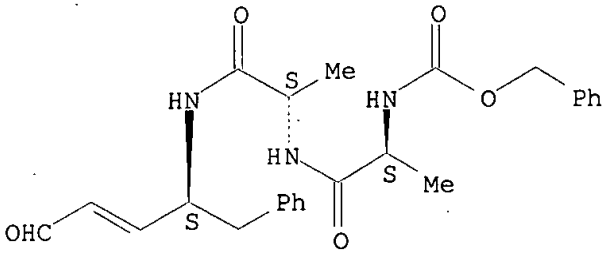
RN 178910-67-3 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



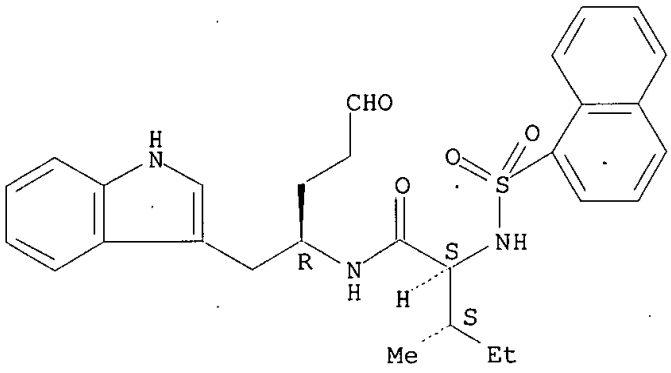
RN 178910-68-4 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-alanyl-N-[4-oxo-1-(phenylmethyl)-2-butenyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



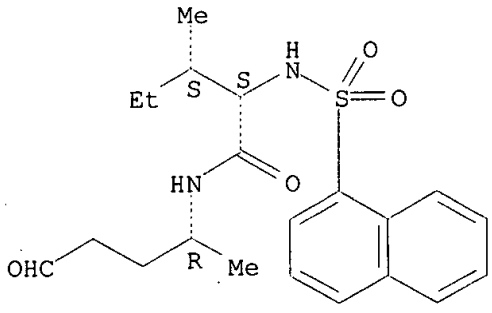
RN 178910-69-5 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxobutyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



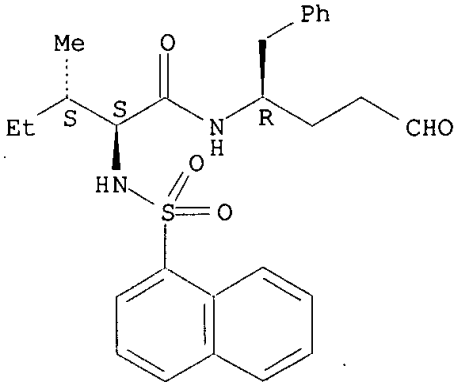
RN 178910-71-9 HCAPLUS
CN Pentanamide, 3-methyl-N-(1-methyl-4-oxobutyl)-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



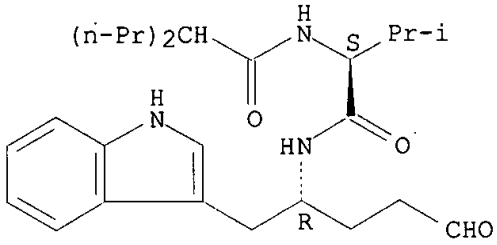
RN 178910-72-0 HCAPLUS
CN Pentanamide, 3-methyl-2-[(1-naphthalenylsulfonyl)amino]-N-[4-oxo-1-(phenylmethyl)butyl]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



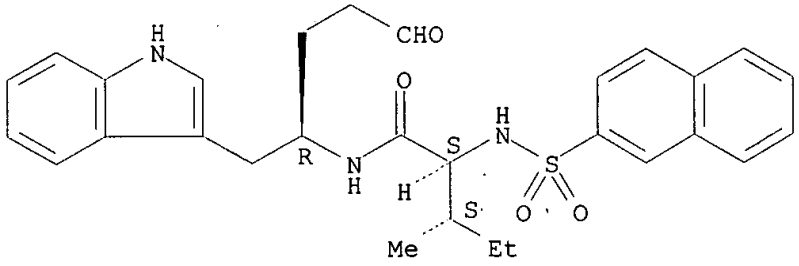
RN 178910-73-1 HCAPLUS
CN Pentanamide, N-[1-[[[1-(1H-indol-3-ylmethyl)-4-oxobutyl]amino]carbonyl]-2-methylpropyl]-2-propyl-, [R-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



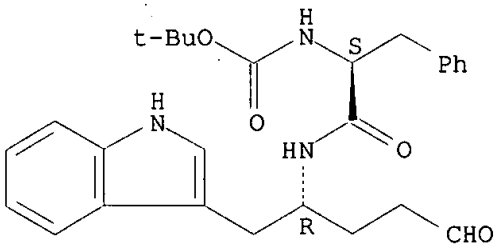
RN 178910-74-2 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxobutyl]-3-methyl-2-[(2-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



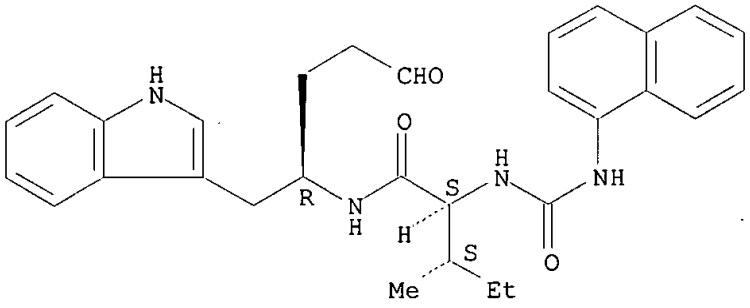
RN 178910-75-3 HCAPLUS
CN Carbamic acid, [2-[[1-(1H-indol-3-ylmethyl)-4-oxobutyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, 1,1-dimethylethyl ester, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



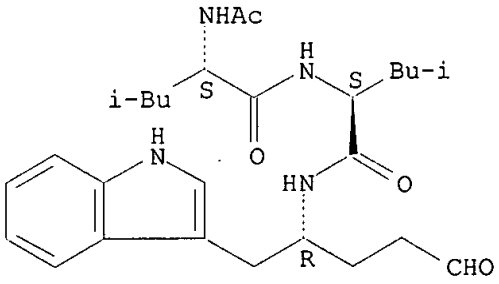
RN 178910-76-4 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxobutyl]-3-methyl-2-[[(1-naphthalenylamino)carbonyl]amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



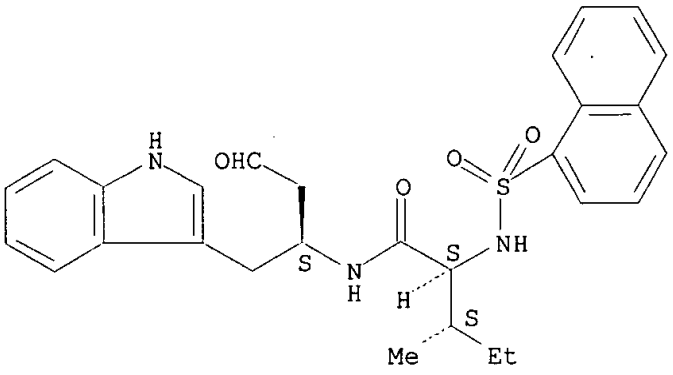
RN 178910-77-5 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[1-(1H-indol-3-ylmethyl)-4-oxobutyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



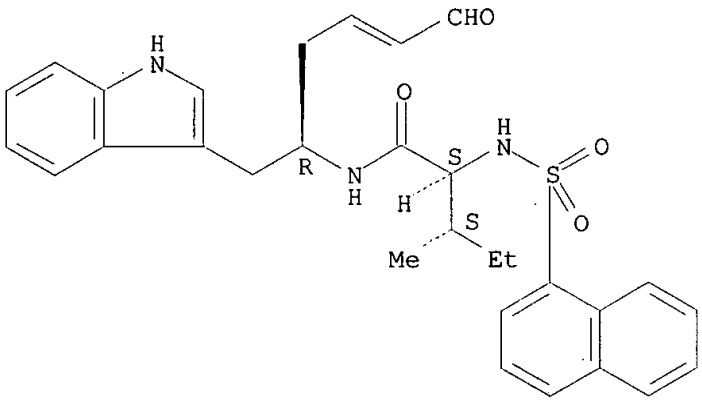
RN 178910-78-6 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-3-oxopropyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



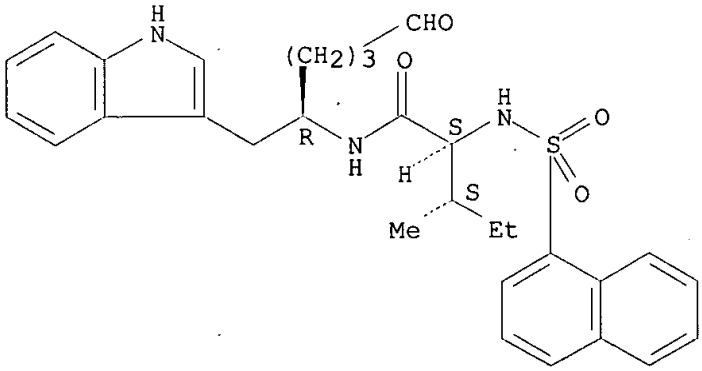
RN 178910-79-7 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-5-oxo-3-pentenyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 178910-80-0 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-5-oxopentyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

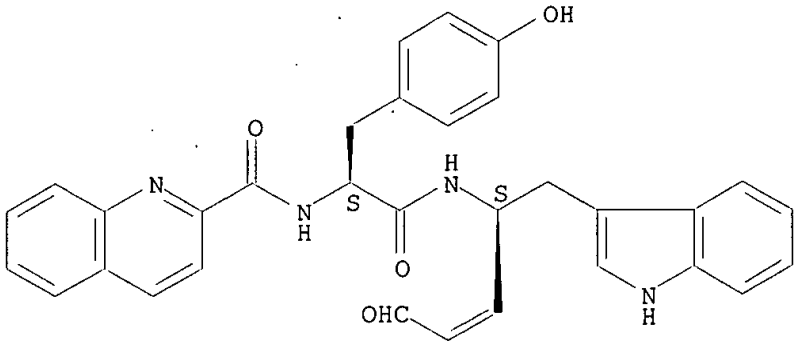
Absolute stereochemistry.



RN 178910-81-1 HCAPLUS
CN 2-Quinolinecarboxamide, N-[1-[(4-hydroxyphenyl)methyl]-2-[[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]amino]-2-oxoethyl]-, [S-(R*,R*)]- (9CI) (CA

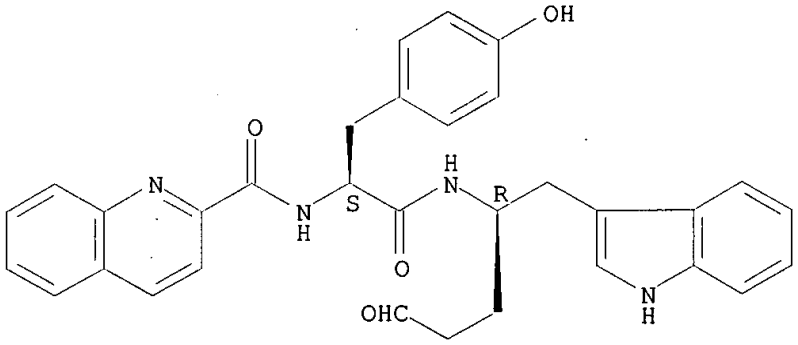
INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



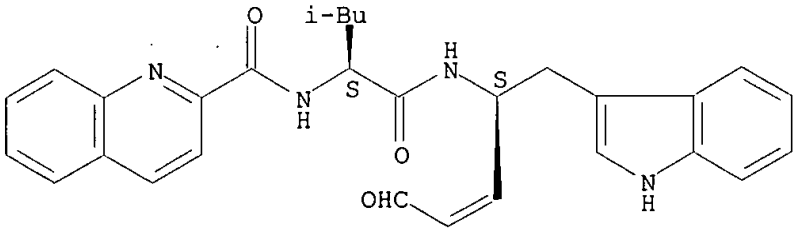
RN 178910-82-2 HCAPLUS
CN 2-Quinolinecarboxamide, N-[1-[(4-hydroxyphenyl)methyl]-2-[[1-(1H-indol-3-ylmethyl)-4-oxobutyl]amino]-2-oxoethyl]-, [S-(R*,S*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



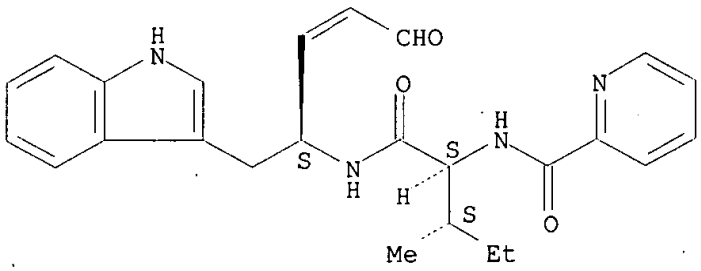
RN 178910-83-3 HCAPLUS
CN 2-Quinolinecarboxamide, N-[1-[[[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



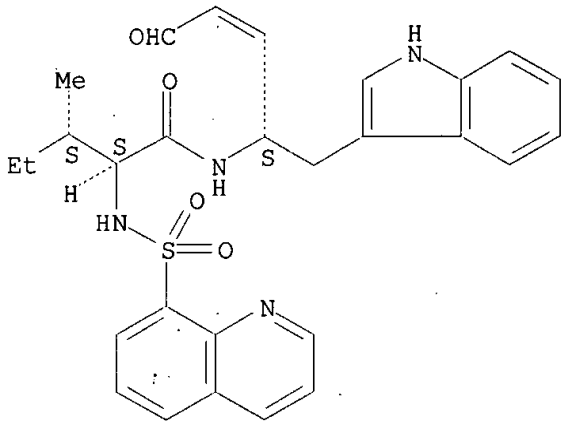
RN 178910-84-4 HCAPLUS
CN 2-Pyridinecarboxamide, N-[1-[[[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]amino]carbonyl]-2-methylbutyl]-, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



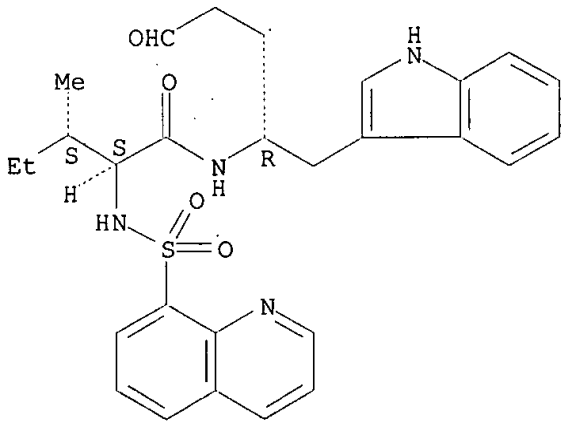
RN 178910-85-5 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxo-2-butenyl]-3-methyl-2-[(8-quinolinylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 178910-86-6 HCAPLUS
CN Pentanamide, N-[1-(1H-indol-3-ylmethyl)-4-oxobutyl]-3-methyl-2-[(8-quinolinylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

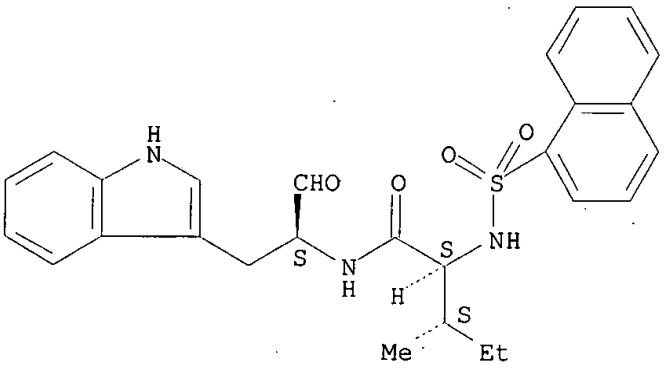


IT **161709-56-4P 161709-71-3P 161709-82-6P**
161709-86-0P 161710-03-8P 161710-04-9P

170589-66-9P 178910-90-2P 178910-91-3P
178910-99-1P 178911-00-7P 178911-01-8P
178911-02-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of **peptide aldehyde** derivs. as cysteine protease inhibitors and **bone resorption** inhibitors for treating **bone** diseases)

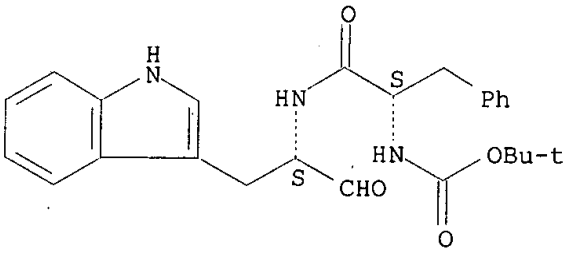
RN 161709-56-4 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



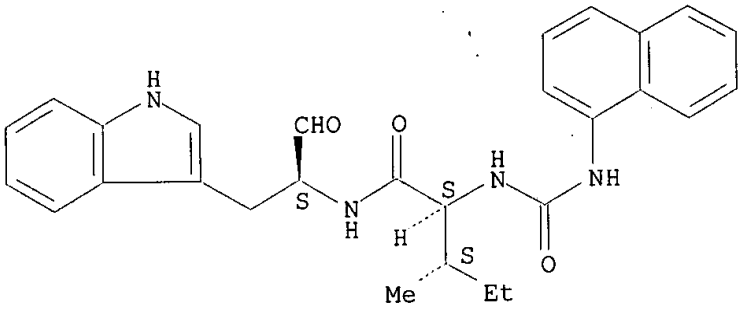
RN 161709-71-3 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, 1,1-dimethylethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



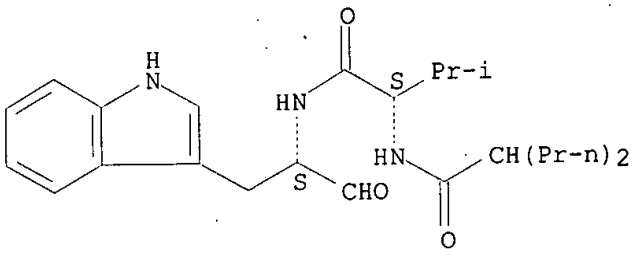
RN 161709-82-6 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[(1-naphthalenylamino)carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



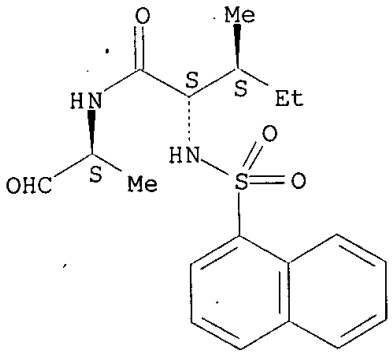
RN 161709-86-0 HCAPLUS
CN Pentanamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-2-propyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



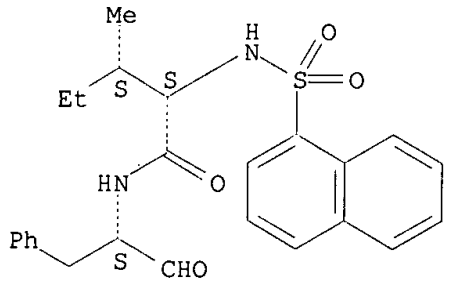
RN 161710-03-8 HCAPLUS
CN Pentanamide, 3-methyl-N-[(1S)-1-methyl-2-oxoethyl]-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



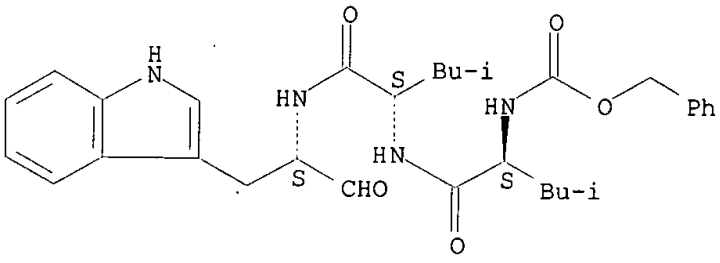
RN 161710-04-9 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-phenylethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



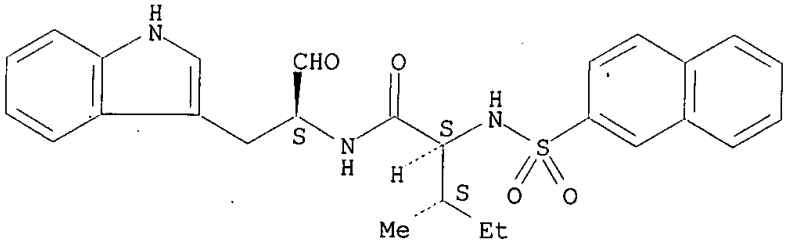
RN 170589-66-9 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



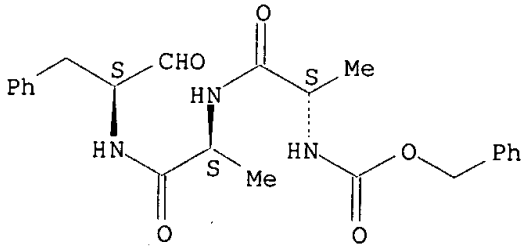
RN 178910-90-2 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(2-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



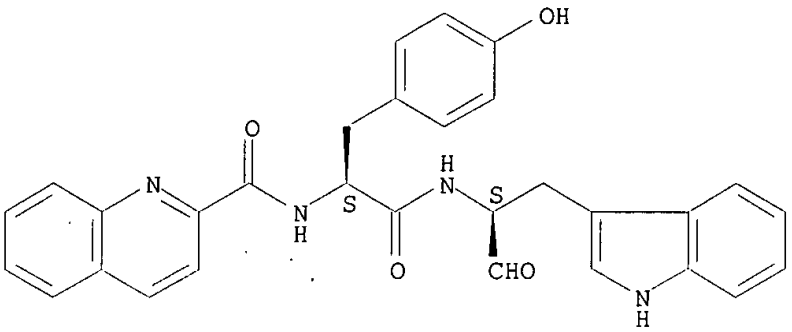
RN 178910-91-3 HCAPLUS
CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-alanyl-N-[(1S)-1-formyl-2-phenylethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



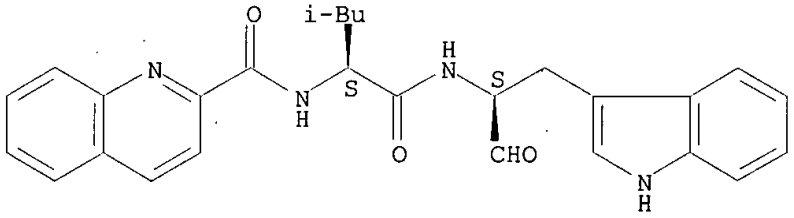
RN 178910-99-1 HCAPLUS
CN 2-Quinolinecarboxamide, N-[2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-1-[(4-hydroxyphenyl)methyl]-2-oxoethyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



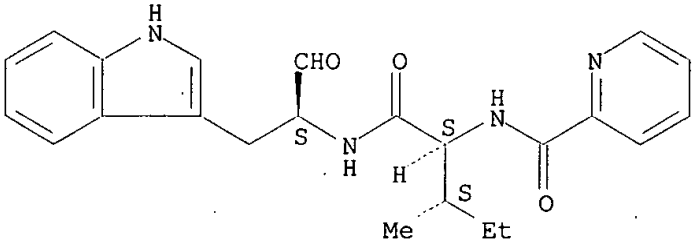
RN 178911-00-7 HCAPLUS
CN 2-Quinolinecarboxamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



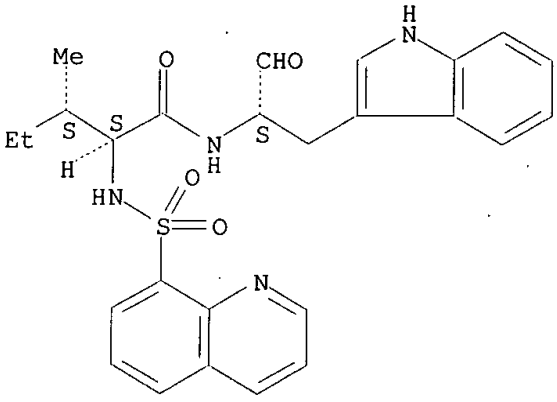
RN 178911-01-8 HCAPLUS
CN 2-Pyridinecarboxamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]-, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 178911-02-9 HCAPLUS
CN Pentanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(8-quinolinylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

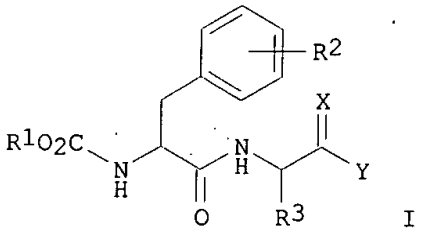
Absolute stereochemistry.



L125 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1996:388227** HCAPLUS
DN **125:59138**
TI Preparation of **dipeptide aldehyde** derivatives as thiol protease inhibitors
IN Kobori, Takeo; Shigeizumi, Sanae; Sugimoto, Kikuo; U. Seitai; Yamaguchi, Koji; Tsuji, Tomoko; Kondo, Sei
PA Sagami Chem Res, Japan
SO Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM C07C271-22
ICS A61K031-27
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **1**
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08092193	A2	19960409	JP 1994-229118	19940926 <--
PRAI JP 1994-229118		19940926 <--		

OS MARPAT 125:59138
GI



I

AB The title compds. [I; R1 = C3-6 cycloalkyl-C1-6 alkyl, (un)substituted C7-14 aralkyl; R2 = H, C1-6 alkyl, halo, OH, C1-6 alkoxy, C7-14 aralkyloxy; R3 = C1-6 alkyl, (un)substituted C7-14 aralkyl; X = O, :NOR4, :NNR4R5; wherein R4 , R5 = H, C1-6 alkyl, C7-14 aralkyl, C2-6 alkoxycarbonyl, C1-4 acyl; Y = H, C1-6 alkyl], which are reversible, potent inhibitors of thiol protease, also inhibit **bone** absorption, and are useful for the treatment of diseases caused by unusual activity of thiol protease such as muscular dystrophy, ischemic diseases (myocardial infarction or brain infarction), Alzheimer's disease, cataract, inflammations, allergies, **osteoporosis**, hypercalcemia,

etc., are prepd. Thus, (S)-2-amino-3-phenyl-1-propanol was condensed with Z-Phe-OH using DCC in THF to give (S)-2-(N-benzyloxycarbonyl-L-phenylalanyl)amino-3-phenyl-1-propanol, which was oxidized by pyridine-sulfonic acid complex and Et3N in DMSO/CH2Cl2 at room temp. for 40 min to give the **dipeptide aldehyde**, (S)-2-(N-benzyloxycarbonyl-L-phenylalanyl)amino-3-phenyl-1-propanal (II). II showed IC50 of 0.045, 0.00032, and 0.030 .mu.g/mL against m-calpain, cathepsin L, and cathepsin B, resp.

ST **dipeptide aldehyde** prepn thiol protease inhibitor; **bone** absorption inhibitor

IT **Bone**
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors)

IT **Osteoporosis**
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

IT **Peptides, preparation**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-, prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors)

IT **52961-49-6P 66253-29-0P** 123768-67-2P 133657-44-0P **167498-27-3P 167498-29-5P 167498-30-8P 167498-31-9P 178168-03-1P 178168-04-2P 178168-05-3P** 178168-06-4P 178168-07-5P 178168-08-6P 178168-09-7P 178232-71-8P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

IT 9047-22-7, Cathepsin B 37353-41-6, Thiol protease 60616-82-2, Cathepsin L 78990-62-2, Calpain
RL: BPR (Biological process); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

IT 67-62-9, Methoxyamine 74-88-4, Methyl iodide, reactions 108-24-7, Acetic anhydride 542-69-8, Butyl iodide 1161-13-3 3182-95-4, L-Phenylalaninol 4114-31-2, Ethoxycarbonylhydrazine 5034-68-4 5470-11-1, Hydroxylamine hydrochloride 72155-45-4, N-tert-Butoxycarbonyl-L-phenylalaninal 111633-84-2 167498-32-0 178168-16-6 178168-17-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

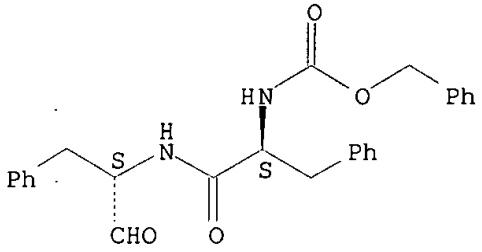
IT 17224-88-3P 167498-34-2P 167498-35-3P 178168-10-0P 178168-11-1P 178168-12-2P 178168-13-3P 178168-14-4P 178168-15-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

IT **52961-49-6P 66253-29-0P 167498-27-3P 167498-29-5P 167498-30-8P 167498-31-9P 178168-03-1P 178168-04-2P 178168-05-3P**
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU**

(Therapeutic use); BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **dipeptide aldehyde** derivs. as thiol protease inhibitors and **bone** absorption inhibitors for treating **osteoporosis**)

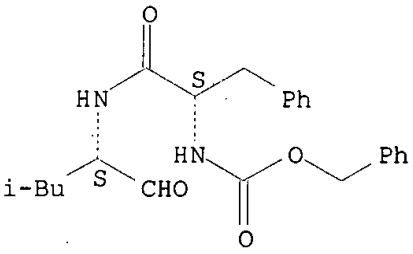
RN 52961-49-6 HCAPLUS
CN Carbamic acid, [2-[(1-formyl-2-phenylethyl)amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



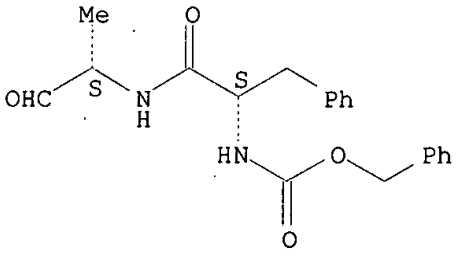
RN 66253-29-0 HCAPLUS
CN Carbamic acid, [(1S)-2-[[(1S)-1-formyl-3-methylbutyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



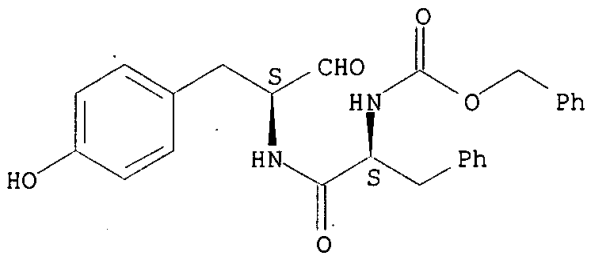
RN 167498-27-3 HCAPLUS
CN Carbamic acid, [(1S)-2-[[(1S)-1-methyl-2-oxoethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



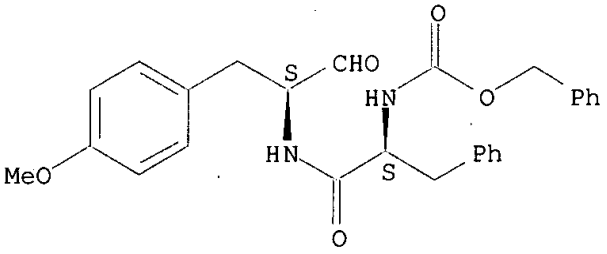
RN 167498-29-5 HCAPLUS
CN Carbamic acid, [(1S)-2-[[(1S)-1-formyl-2-(4-hydroxyphenyl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



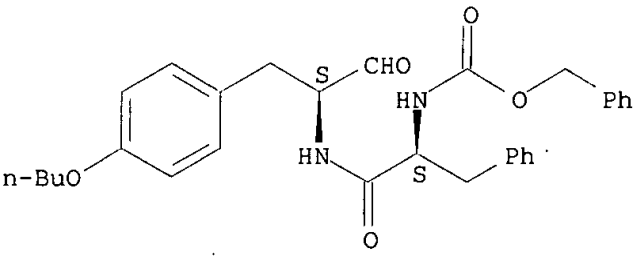
RN 167498-30-8 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(4-methoxyphenyl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



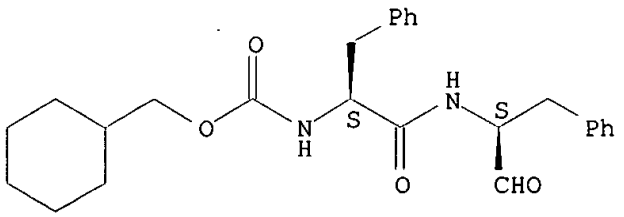
RN 167498-31-9 HCAPLUS
CN Carbamic acid, [2-[[2-(4-butoxyphenyl)-1-formylethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



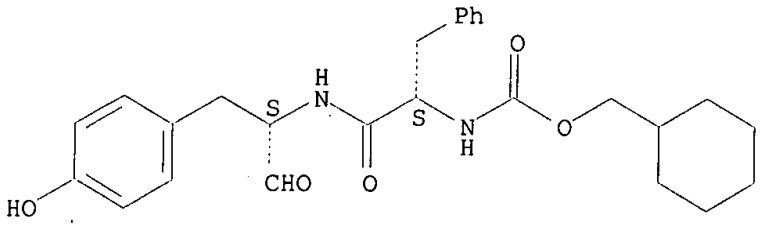
RN 178168-03-1 HCAPLUS
CN Carbamic acid, [2-[(1-formyl-2-phenylethyl)amino]-2-oxo-1-(phenylmethyl)ethyl]-, cyclohexylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



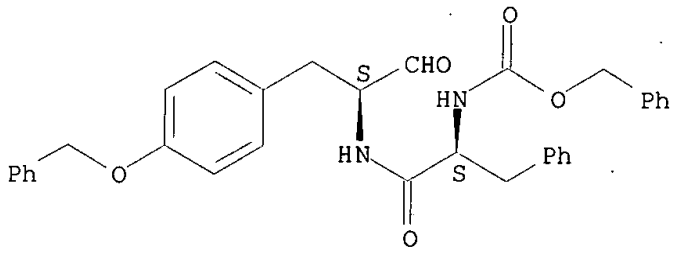
RN 178168-04-2 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(4-hydroxyphenyl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, cyclohexylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 178168-05-3 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-[4-(phenylmethoxy)phenyl]ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

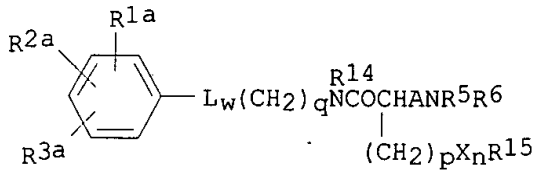
Absolute stereochemistry.



L125 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1995:478072** HCAPLUS
DN **122:240444**
TI Preparation of substituted dipeptide analogs as growth hormone release promoters.
IN Pisano, Judith M.; Schoen, William R.; Wyvratt, Matthew J.
PA Merck and Co., Inc., USA
SO PCT Int. Appl., 128 pp.
CODEN: PIXXD2
DT **Patent**
LA English
IC ICM A61K037-00
ICS A61K037-02; A61K037-36
CC 34-3 (Amino Acids, Peptides, and Proteins)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9411012	A1	19940526	WO 1993-US10551	19931029 <--
	W: AU, BB, BG, BR, BY, CA, CZ, FI, HU, JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US, UZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2147503	AA	19940526	CA 1993-2147503	19931029 <--
	AU 9455469	A1	19940608	AU 1994-55469	19931029 <--
	AU 676525	B2	19970313		
	EP 669830	A1	19950906	EP 1994-900505	19931029 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
JP 08503213 T2 19960409 JP 1993-512178 19931029 <--
US 5726319 A 19980310 US 1995-510026 19950801 <--
PRAI US 1992-973142 19921106 <--
WO 1993-US10551 19931029 <--
US 1993-175809 19931230 <--
OS MARPAT 122:240444
GI



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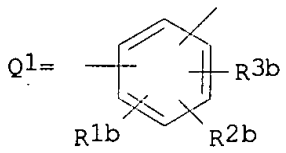
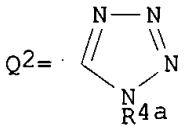
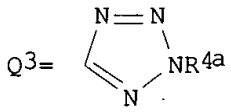
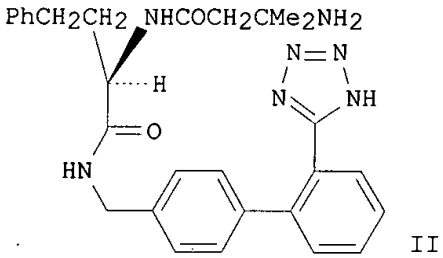








II

AB Title compds. [I; L = Q1; n, w = 0,1; p = 0-6; q = 0-4; X = CO, O, SOm, CH(OH), NR10, CH:CH; m = 0-2; R1a, R2a, R1b, R2b = H, halo, alkyl, perfluoroalkyl, perfluoroalkoxy, SOmR7a, cyano, nitro, (substituted) Ph, etc.; R7a = H, alkyl, perfluoroalkyl, (substituted) Ph, phenylalkyl; R3a, R3b = H, R9, R9-substituted alkyl, R9-substituted Ph, R9-substituted PhO; R9 = Q2, Q3, etc.; R5 = H, (substituted) Ph, alkyl, alkenyl, alkynyl; R6 = H, alkyl, Ph, phenylalkyl; A = (CH2)xCR8R8a(CH2)y; x, y = 0-3; R8, R8a = H, CF3, Ph, (substituted) alkyl; R8R8a = (CH2)t; t = 2-6; R14 = H, (substituted) alkyl, Ph; R15 = H, CF3, (substituted) Ph, cycloalkyl, naphthyl, alkyl, heterocyclyl, etc.], were prepd. as growth hormone release promoters (no data). Thus, N-tert-butoxycarbonyl-D-homophenylalanine was coupled with N-triphenylmethyl-5-[2-(4'-aminomethylbiphen-4-yl)]tetrazole (prepn. from benzonitrile given) using 1-(3-dimethylaminopropyl)-3-ethylcarbodiimide hydrochloride and Et3N in CH2Cl2. The product was deprotected and coupled with 3-benzyloxycarbonylamino-3-methylbutanoic acid N-hydroxysuccinimide ester (prepn. given) in CH2Cl2 contg. diisopropylethylamine to give, after deprotection, title compd. II.

ST dipeptide analog growth hormone release promoter; obesity treatment dipeptide analog; **osteoporosis** treatment dipeptide analog

IT Antiobesity agents
(dipeptide growth hormone release promoters analogs as)

IT **Osteoporosis**
(treatment, dipeptide growth hormone release promoters analogs for)

IT Peptides, preparation
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(di-, prepn. of analogs as growth hormone release promoters)

IT 162125-35-1P 162125-36-2P 162125-37-3P 162125-38-4P 162125-39-5P
162125-40-8P 162125-41-9P 162125-42-0P 162125-43-1P 162125-44-2P

162125-45-3P 162125-46-4P 162125-47-5P 162125-48-6P 162125-49-7P
162125-50-0P 162125-51-1P 162125-52-2P 162125-53-3P 162125-54-4P
162125-55-5P 162125-56-6P 162125-57-7P 162125-58-8P 162125-59-9P
162125-60-2P 162125-61-3P 162125-62-4P 162125-63-5P 162125-64-6P
162125-65-7P 162125-66-8P 162125-67-9P 162125-68-0P 162125-69-1P
162125-70-4P 162125-71-5P 162125-72-6P 162125-73-7P 162125-74-8P
162125-75-9P 162125-76-0P 162125-77-1P 162125-78-2P 162125-79-3P
162125-80-6P 162125-81-7P 162125-82-8P 162125-83-9P 162125-84-0P
162125-85-1P 162125-86-2P 162125-87-3P 162125-88-4P 162125-89-5P
162125-90-8P 162125-91-9P 162125-92-0P 162125-93-1P 162125-94-2P
162125-95-3P 162125-96-4P 162125-97-5P 162125-98-6P 162125-99-7P
162126-00-3P 162126-01-4P 162126-02-5P 162126-03-6P 162126-04-7P
162126-05-8P 162126-06-9P 162126-07-0P 162126-08-1P 162126-09-2P
162126-10-5P 162126-11-6P 162126-12-7P 162126-13-8P 162126-14-9P
162126-15-0P 162126-16-1P 162126-17-2P 162126-18-3P 162126-19-4P
162126-20-7P 162126-21-8P 162126-22-9P 162126-23-0P 162126-24-1P
162126-25-2P 162126-26-3P 162126-27-4P 162126-28-5P 162126-29-6P
162126-30-9P 162126-31-0P 162126-32-1P 162126-33-2P 162126-34-3P
162126-35-4P 162126-37-6P 162126-38-7P 162126-40-1P 162126-42-3P
162126-43-4P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as growth hormone release promoter)

IT 4879-95-2P 18039-42-4P 51219-55-7P 54043-71-9P 70680-21-6P
114772-39-3P 124750-51-2P 124750-53-4P 124806-66-2P 126090-33-3P
128182-82-1P 129765-95-3P 134603-82-0P 141595-98-4P 154750-11-5P
155300-46-2P 155616-81-2P 159634-93-2P 159634-94-3P 162126-44-5P
162126-45-6P 162126-46-7P 162126-47-8P 162126-48-9P 162126-49-0P
162126-50-3P 162126-52-5P 162126-53-6P 162126-54-7P 162126-55-8P
162126-56-9P 162126-57-0P 162126-58-1P 162126-59-2P 162126-61-6P
162126-62-7P 162126-63-8P 162126-64-9P 162126-65-0P 162126-66-1P
162126-67-2P 162126-68-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for dipeptide analog growth hormone release promoter)

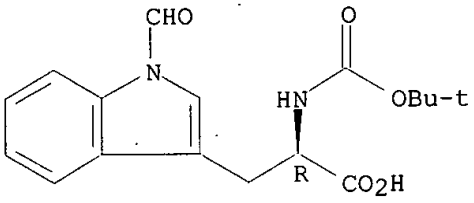
IT 62-53-3, Aniline, reactions 100-47-0, Benzonitrile, reactions
115-11-7, Isobutylene, reactions 577-19-5, 2-Bromo-1-nitrobenzene
597-43-3, 2,2-Dimethylsuccinic acid 624-31-7, 4-Iodotoluene 1189-71-5, Chlorosulfonyl isocyanate 4530-20-5, BOC-Gly 5241-64-5, BOC-D-Trp-OH
5720-05-8, 4-Tolylboronic acid 18942-49-9, BOC-D-Phe-OH 19597-69-4, Lithium azide 26628-22-8, Sodium azide **64905-10-8** 82732-07-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of dipeptide analog growth hormone release promoter)

IT 9002-72-6, Growth hormone
RL: RCT (Reactant); RACT (Reactant or reagent)
(release promoters, dipeptide analogs as)

IT **64905-10-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of dipeptide analog growth hormone release promoter)

RN 64905-10-8 HCAPLUS
CN D-Tryptophan, N-[(1,1-dimethylethoxy)carbonyl]-1-formyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1995:435611** HCAPLUS
DN **122:214520**
TI **Peptide** alcohol or **aldehyde** derivatives as cathepsin L inhibitors and **bone resorption** inhibitors
IN Sohda, Takashi; Fujisawa, Yukio; Yasuma, Tsuneo; Mizoguchi, Junji; Kori, Masakuni; Takizawa, Masayuki
PA Takeda Chemical Industries, Ltd., Japan
SO Eur. Pat. Appl., 62 pp.
CODEN: EPXXDW
DT **Patent**
LA English
IC ICM C07D209-16
ICS A61K031-40; C07D403-12; C07D405-12; C07K005-06; C07C271-16; C07C271-22; C07C311-19; C07C233-22
CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **1**, 7
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 611756	A2	19940824	EP 1994-102404	19940217 <--
	EP 611756	A3	19941130		
	EP 611756	B1	20030507		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
	JP 07101924	A2	19950418	JP 1994-11081	19940202 <--
	JP 2848232	B2	19990120		
	JP 09208545	A2	19970812	JP 1996-292418	19940202 <--
	US 5498728	A	19960312	US 1994-192038	19940204 <--
	AU 9454964	A1	19940825	AU 1994-54964	19940207 <--
	CA 2115913	AA	19940820	CA 1994-2115913	19940217 <--
	NO 9400550	A	19940822	NO 1994-550	19940217 <--
	AT 239705	E	20030515	AT 1994-102404	19940217 <--
	FI 9400788	A	19940820	FI 1994-788	19940218 <--
	HU 66219	A2	19941028	HU 1994-473	19940218 <--
	CN 1107363	A	19950830	CN 1994-101373	19940218 <--
	US 5639781	A	19970617	US 1995-495814	19950627 <--
	US 5716980	A	19980210	US 1995-495097	19950627 <--
	US 5955491	A	19990921	US 1995-495352	19950627 <--
PRAI	JP 1993-30182	A	19930219 <--		
	JP 1993-197305	A	19930809 <--		
	JP 1994-11081	A3	19940202 <--		
	US 1994-192038	A3	19940204 <--		

OS MARPAT 122:214520
AB The invention provides cathepsin L inhibitors contg. compds. R4-(NHCHR3CO)n-(NHCHR2CO)m-NHCHR1-X [I; R1 = H, (un)substituted arylalkyl, heterocyclic-alkyl, or lower alkyl; R2, R3 = (independently) H, (un)substituted hydrocarbyl; R4 = (un)substituted alkanoyl, sulfonyl, carbonyloxy, carbamoyl or thiocarbamoyl; X = CHO or CH2OB; B = H or OH-protecting group; m, n = (independently) 0 or 1; provided that R4 = arylalkanoyl, C>9 arylsulfonyl or lower alkylsulfonyl, or (un)substituted carbamoyl or thiocarbamoyl, when R1 = unsubstituted lower alkyl, arylalkyl, or methylthioethyl, R2 and R3 = (independently) lower alkyl or

arylalkyl, X = CHO, m = 1, and n = 0 or 1] and their salts. I are useful as prophylactic/therapeutic agents for **osteoporosis**. For example, N-benzyloxycarbonyl-L-isoleucyl-L-tryptophanol (prepn. given) was deprotected by hydrogenolysis and coupled with 1-naphthalenesulfonyl chloride in DMF contg. DMAP to give 82% title alc. N-(1-naphthylsulfonyl)-L-isoleucyl-L-tryptophanol (II). Oxidn. of II by pyridine-SO3 complex in DMSO gave the corresponding L-tryptophanal deriv. (III), a specifically claimed compd. Human recombinant cathepsin L (prepn. and purifn. given) was inhibited by III with IC50 1.9 .times. 10-9M. III at 10 .mu.g/mL also gave 49% inhibition of rat **bone resorption** in vitro (method of Raisz). Approx. 200 I are listed with characterizing data.

ST **peptide** alc **aldehyde** cathepsin L inhibitor; **bone resorption** inhibitor **peptide** alc **aldehyde**

IT **Bone**
(prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT **Osteoporosis**
(treatment; prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT Alcohols, preparation
Aldehydes, preparation
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**peptide**, prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT 60616-82-2P, Cathepsin L
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation); PROC (Process)
(human recombinant; prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT 21739-21-9P, Diethyl benzyl(4-nitrobenzyl)malonate 161708-60-7P, L-Isoleucyl-L-tryptophanol 161710-44-7P 161710-45-8P 161710-46-9P 161710-47-0P 161710-48-1P 161710-49-2P 161710-50-5P 161710-51-6P, 2-Benzyl-3-(p-nitrophenyl)propionic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT 27461-77-4P 87579-22-4P **88191-83-7P** 109364-32-1P
111317-96-5P **134865-03-5P 144724-08-3P** 161708-61-8P
161708-62-9P 161708-63-0P 161708-64-1P 161708-65-2P 161708-66-3P
161708-67-4P 161708-68-5P 161708-69-6P 161708-70-9P 161708-71-0P
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161708-82-3P 161708-83-4P 161708-84-5P 161708-85-6P 161708-86-7P
161708-87-8P 161708-88-9P 161708-89-0P 161708-90-3P 161708-91-4P
161708-92-5P 161708-93-6P 161708-94-7P 161708-95-8P 161708-96-9P
161708-97-0P 161708-98-1P 161708-99-2P 161709-00-8P 161709-01-9P
161709-02-0P 161709-03-1P 161709-04-2P 161709-05-3P 161709-06-4P
161709-07-5P 161709-08-6P 161709-09-7P 161709-10-0P 161709-11-1P
161709-12-2P 161709-13-3P 161709-14-4P 161709-15-5P 161709-16-6P
161709-17-7P 161709-18-8P 161709-19-9P 161709-20-2P 161709-21-3P
161709-22-4P 161709-23-5P 161709-24-6P 161709-25-7P 161709-26-8P
161709-27-9P, L-Leucinamide (N-[(phenylmethoxy)carbonyl]-L-leucyl-N-(2-hydroxyethyl)-) 161709-28-0P 161709-29-1P 161709-30-4P
161709-31-5P 161709-32-6P 161709-33-7P 161709-34-8P 161709-35-9P

161709-36-0P 161709-37-1P 161709-38-2P 161709-39-3P 161709-40-6P
161709-41-7P 161709-42-8P 161709-43-9P 161709-44-0P 161709-45-1P
161709-46-2P 161709-47-3P 161709-48-4P 161709-49-5P 161709-50-8P
161709-51-9P 161709-52-0P 161709-53-1P
161709-54-2P 161709-55-3P 161709-56-4P
161709-57-5P 161709-58-6P 161709-59-7P
161709-60-0P 161709-61-1P 161709-62-2P
161709-63-3P 161709-64-4P **161709-65-5P**
161709-66-6P 161709-67-7P 161709-68-8P
161709-69-9P 161709-70-2P 161709-71-3P
161709-72-4P 161709-73-5P 161709-74-6P **161709-75-7P**
161709-76-8P 161709-77-9P 161709-78-0P
161709-79-1P 161709-80-4P **161709-81-5P**
161709-82-6P 161709-83-7P 161709-84-8P
161709-85-9P 161709-86-0P 161709-87-1P
161709-88-2P 161709-89-3P 161709-90-6P
161709-91-7P 161709-92-8P 161709-93-9P
161709-94-0P 161709-95-1P 161709-96-2P
161709-97-3P 161709-98-4P **161709-99-5P**
161710-00-5P 161710-01-6P 161710-02-7P
161710-03-8P 161710-04-9P 161710-05-0P
161710-06-1P 161710-07-2P 161710-08-3P
161710-09-4P 161710-10-7P 161710-11-8P
161710-12-9P 161710-13-0P 161710-14-1P 161710-15-2P
161710-16-3P 161710-17-4P 161710-18-5P 161710-19-6P **161710-20-9**
P 161710-21-0P 161710-22-1P 161710-23-2P 161710-24-3P
161710-25-4P 161710-26-5P **161710-27-6P 161710-28-7P**
161710-29-8P 161710-30-1P 161710-31-2P 161710-32-3P 161710-33-4P
161710-34-5P 161710-35-6P 161710-36-7P 161710-37-8P
161710-38-9P 161710-39-0P 161710-40-3P 161710-41-4P
161710-42-5P 161710-43-6P 161813-76-9P 161813-77-0P
161813-78-1P 161813-79-2P 161813-80-5P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

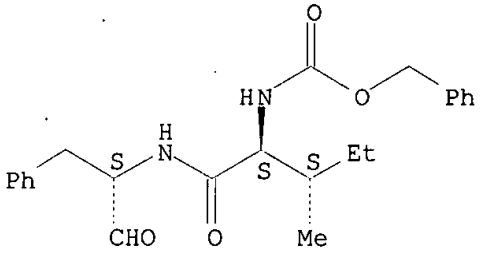
IT 75-36-5, Acetyl chloride 85-46-1, 1-Naphthalenesulfonyl chloride 98-59-9, p-Toluenesulfonyl chloride 98-88-4, Benzoyl chloride 99-66-1, Valproic acid 100-14-1, p-Nitrobenzyl chloride 100-46-9, Benzylamine, reactions 103-49-1, Dibenzylamine 607-81-8, Diethyl benzylmalonate 621-29-4, m-Methylphenyl isocyanate 1161-13-3, N-Benzyloxycarbonyl-L-phenylalanine 20074-79-7, Diethyl 4-aminobenzylphosphonate 58889-48-8, N-Benzyloxycarbonyl-L-tryptophanol 68762-05-0 108327-31-7, N-Benzyloxycarbonyl-D,L-.alpha.-naphthylalanine 161709-46-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

IT **88191-83-7P 134865-03-5P 144724-08-3P**
161709-51-9P 161709-52-0P 161709-54-2P
161709-55-3P 161709-56-4P 161709-57-5P
161709-58-6P 161709-59-7P 161709-60-0P
161709-61-1P 161709-62-2P 161709-63-3P
161709-65-5P 161709-66-6P 161709-67-7P
161709-68-8P 161709-69-9P 161709-70-2P
161709-71-3P 161709-72-4P 161709-75-7P
161709-76-8P 161709-77-9P 161709-78-0P
161709-79-1P 161709-81-5P 161709-82-6P
161709-83-7P 161709-84-8P 161709-85-9P
161709-86-0P 161709-88-2P 161709-89-3P
161709-90-6P 161709-91-7P 161709-92-8P

161709-93-9P 161709-94-0P 161709-95-1P
161709-96-2P 161709-97-3P 161709-99-5P
161710-00-5P 161710-01-6P 161710-02-7P
161710-03-8P 161710-04-9P 161710-05-0P
161710-06-1P 161710-07-2P 161710-08-3P
161710-09-4P 161710-10-7P 161710-11-8P
161710-12-9P 161710-13-0P 161710-20-9P
161710-21-0P 161710-27-6P 161710-28-7P
161710-38-9P 161813-78-1P 161813-79-2P
161813-80-5P
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); **USES (Uses)**
(prepn. of **peptide** alc. and **aldehyde** derivs. as inhibitors of cathepsin L and **bone resorption**)

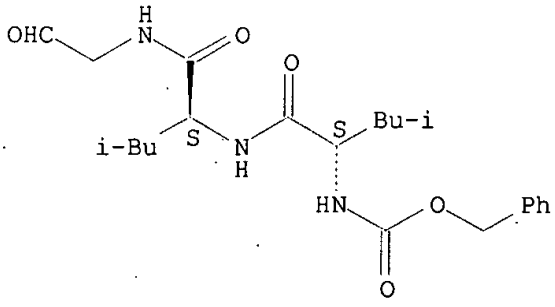
RN 88191-83-7 HCAPLUS
CN Carbamic acid, [1-[[(1-formyl-2-phenylethyl)amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



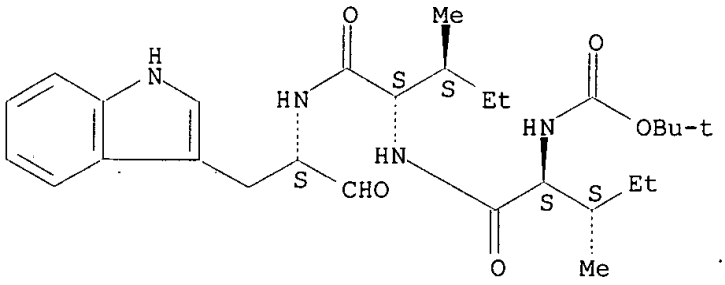
RN 134865-03-5 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-(2-oxoethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



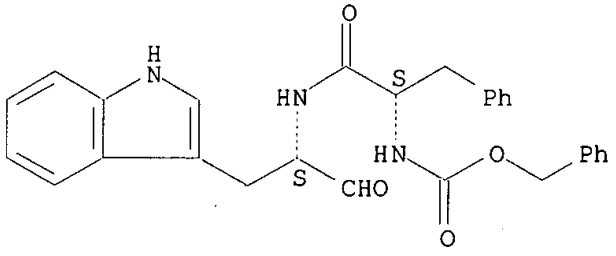
RN 144724-08-3 HCAPLUS
CN L-Isoleucinamide, N-[(1,1-dimethylethoxy)carbonyl]-L-isoleucyl-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



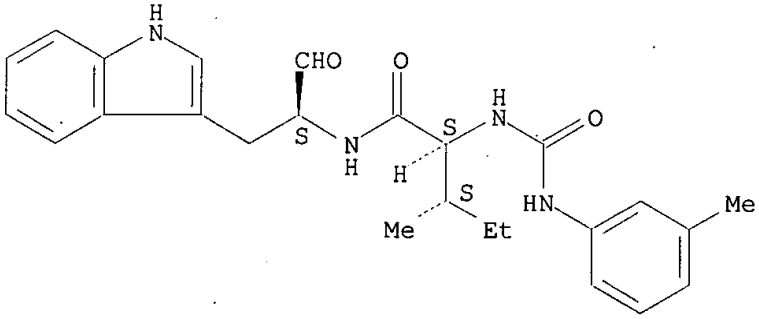
RN 161709-51-9 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



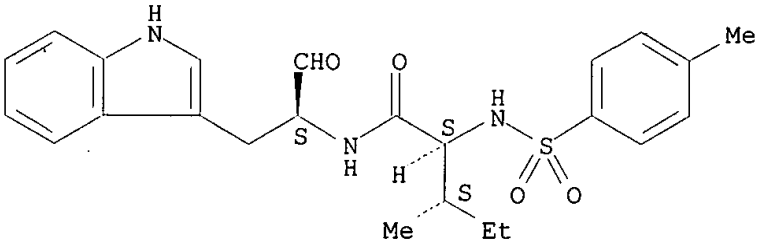
RN 161709-52-0 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[[(3-methylphenyl)amino]carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



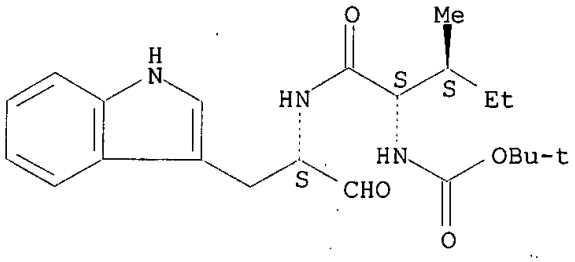
RN 161709-54-2 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[(4-methylphenyl)sulfonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



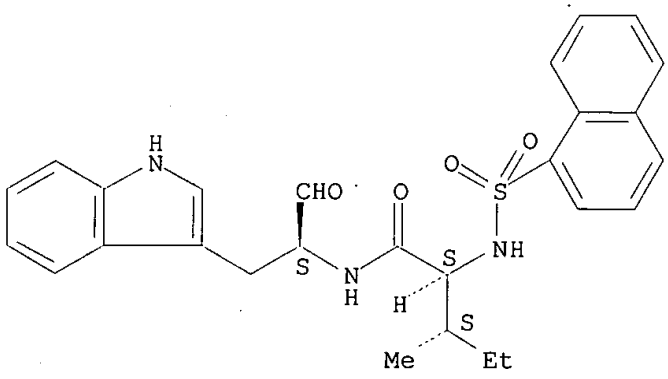
RN 161709-55-3 HCAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



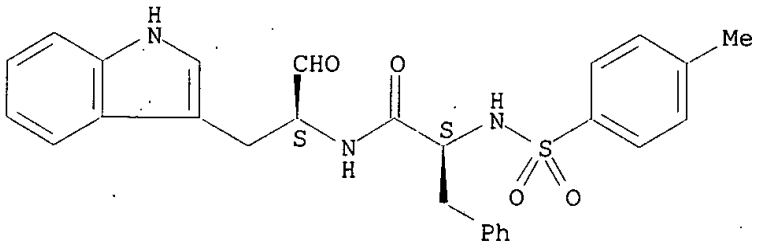
RN 161709-56-4 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



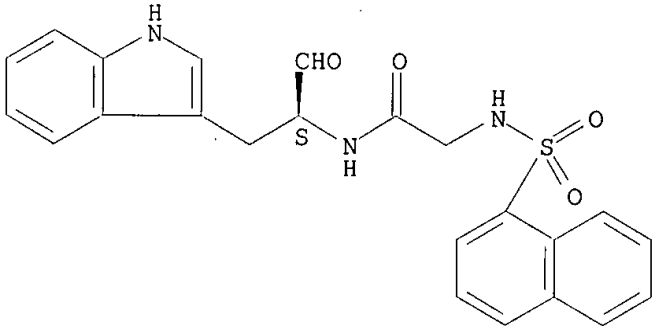
RN 161709-57-5 HCAPLUS
CN Benzenepropanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-.alpha.-[[(4-methylphenyl)sulfonyl]amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



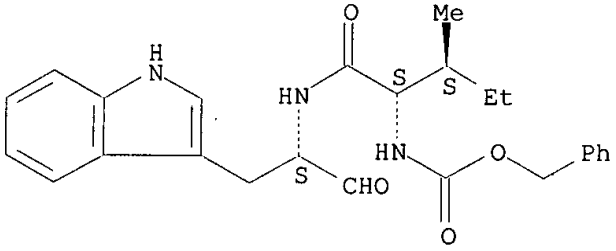
RN 161709-58-6 HCAPLUS
CN Acetamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-2-[(1-naphthalenylsulfonyl)amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



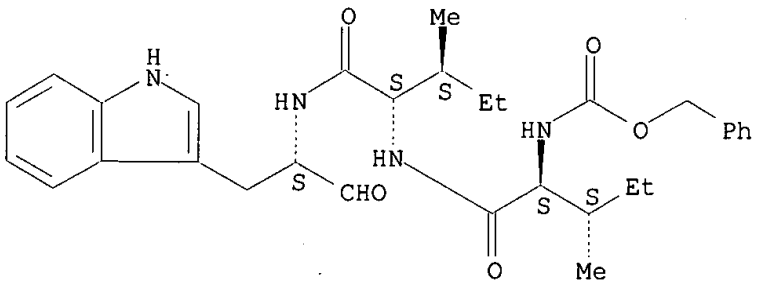
RN 161709-59-7 HCAPLUS
CN Carbamic acid, [(1S,2S)-1-[[[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



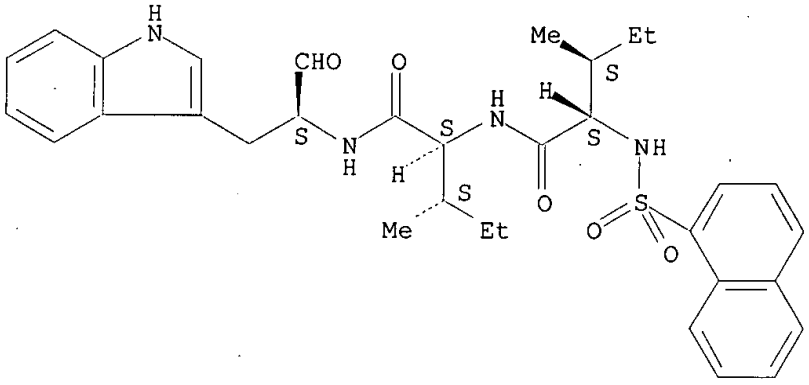
RN 161709-60-0 HCAPLUS
CN L-Isoleucinamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



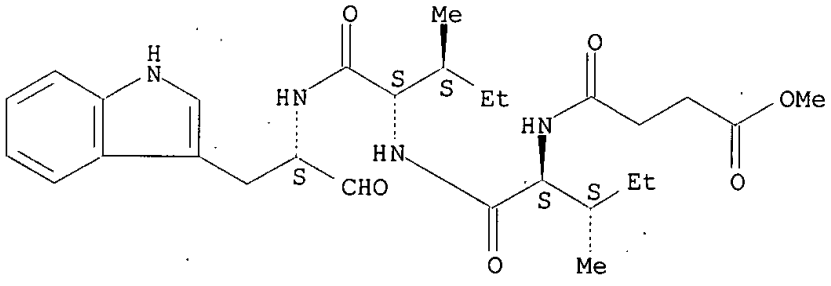
RN 161709-61-1 HCAPLUS
CN L-Isoleucinamide, N-(1-naphthalenylsulfonyl)-L-isoleucyl-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



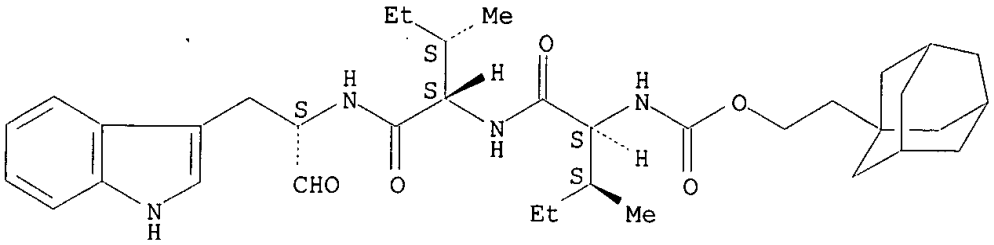
RN 161709-62-2 HCAPLUS
CN L-Isoleucinamide, N-(4-methoxy-1,4-dioxobutyl)-L-isoleucyl-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



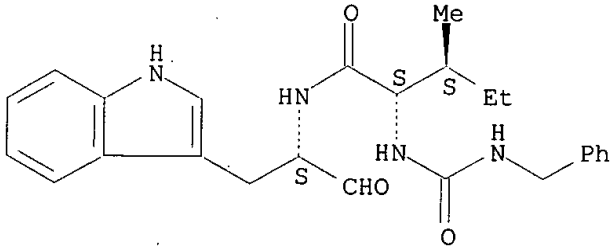
RN 161709-63-3 HCAPLUS
CN L-Isoleucinamide, N-[(2-tricyclo[3.3.1.13,7]dec-1-ylethoxy)carbonyl]-L-isoleucyl-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



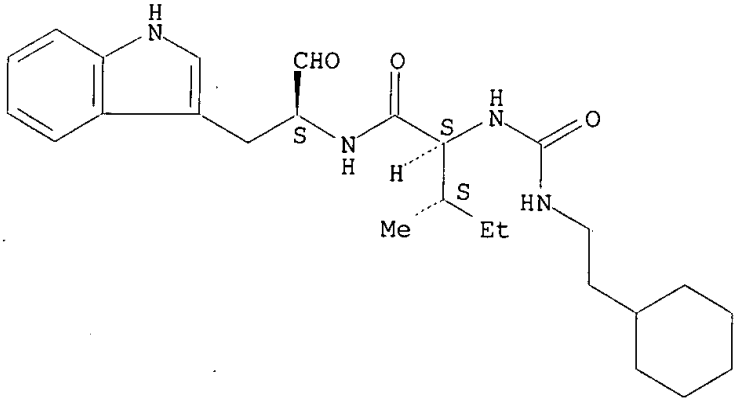
RN 161709-65-5 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[[(phenylmethyl)amino]carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



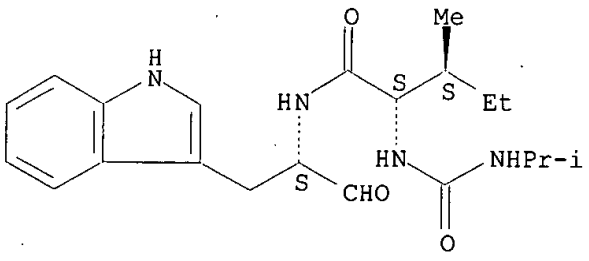
RN 161709-66-6 HCAPLUS
CN Pentanamide, 2-[[[(2-cyclohexylethyl)amino]carbonyl]amino]-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



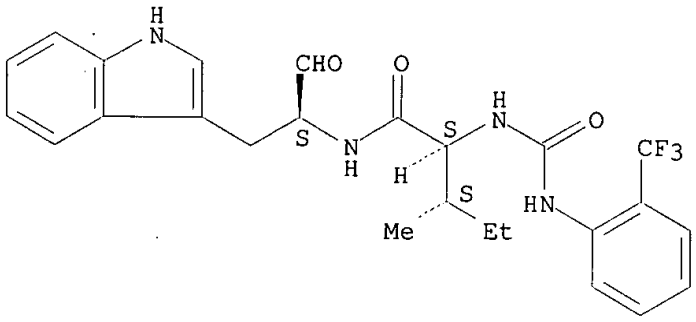
RN 161709-67-7 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[[(1-methylethyl)amino]carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



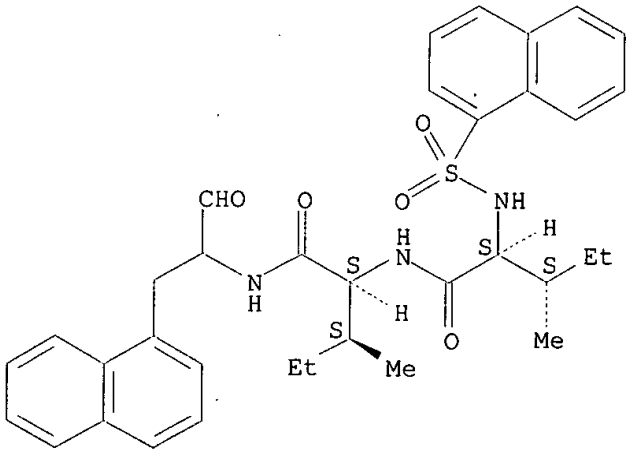
RN 161709-68-8 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[[[2-(trifluoromethyl)phenyl]amino]carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



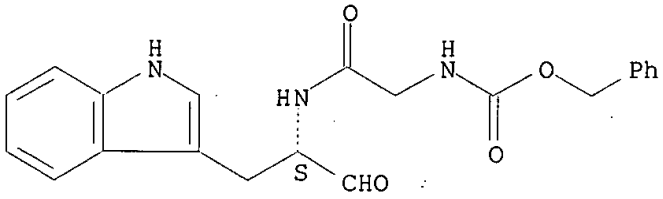
RN 161709-69-9 HCAPLUS
CN L-Isoleucinamide, N-(1-naphthalenylsulfonyl)-L-isoleucyl-N-[1-formyl-2-(1-naphthalenyl)ethyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



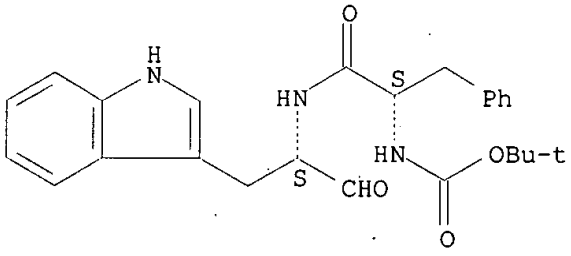
RN 161709-70-2 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxoethyl]-, phenylmethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



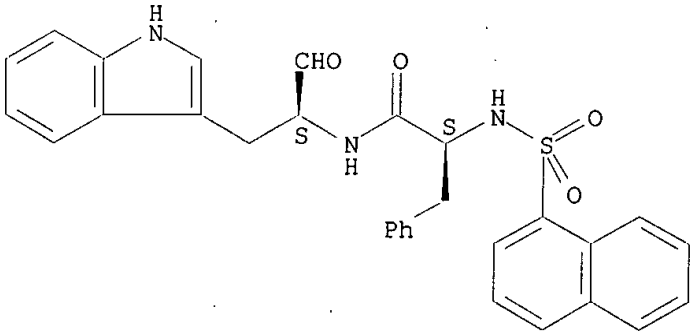
RN 161709-71-3 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxo-1-(phenylmethyl)ethyl]-, 1,1-dimethylethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



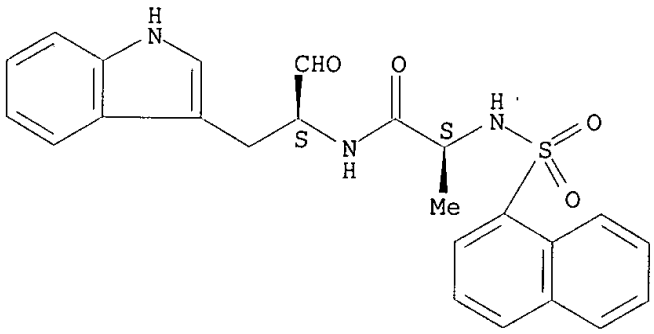
RN 161709-72-4 HCAPLUS
CN Benzenepropanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-.alpha.-[(1-naphthalenylsulfonyl)amino]-, (.alpha.S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



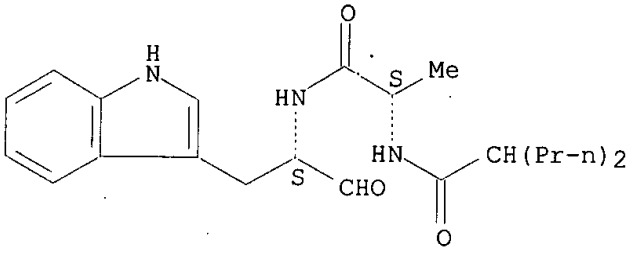
RN 161709-75-7 HCAPLUS
CN Propanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-2-[(1-naphthalenylsulfonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



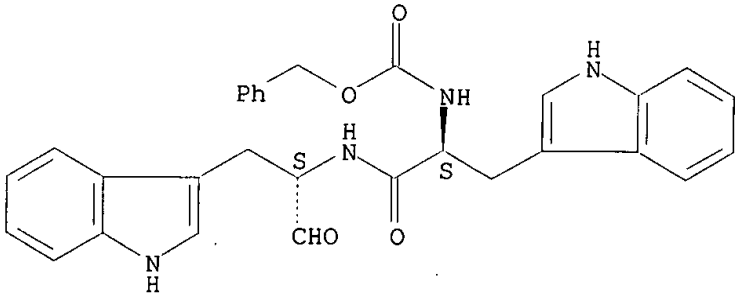
RN 161709-76-8 HCAPLUS
CN Pentanamide, N-[2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-1-methyl-2-oxoethyl]-2-propyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



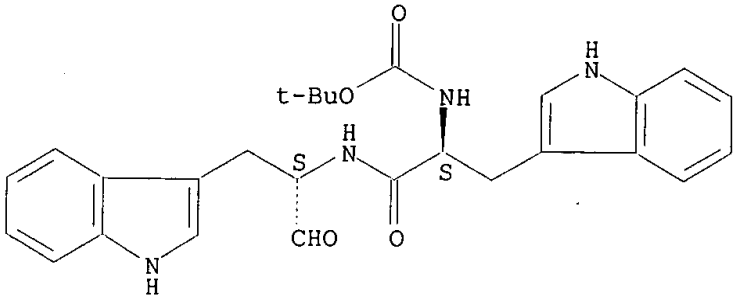
RN 161709-77-9 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



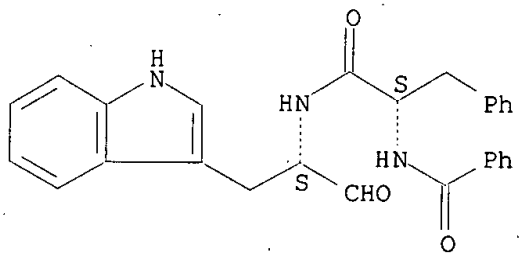
RN 161709-78-0 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-1-(1H-indol-3-ylmethyl)-2-oxoethyl]-, 1,1-dimethylethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



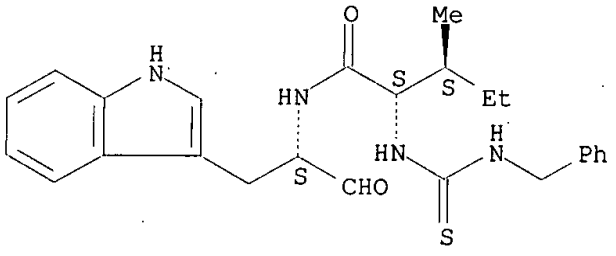
RN 161709-79-1 HCAPLUS
CN Benzenepropanamide, .alpha.-(benzoylamino)-N-[1-formyl-2-(1H-indol-3-yl)ethyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



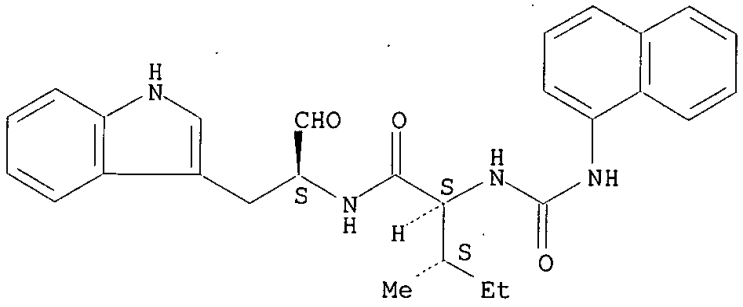
RN 161709-81-5 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[[(phenylmethyl)amino]thioxomethyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



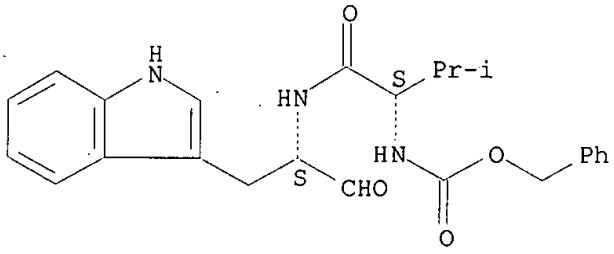
RN 161709-82-6 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[(1-naphthalenylamino)carbonyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



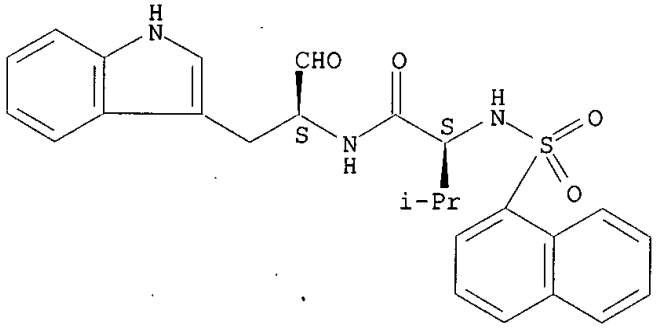
RN 161709-83-7 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



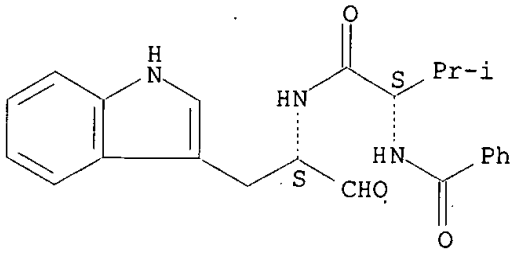
RN 161709-84-8 HCAPLUS
CN Butanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



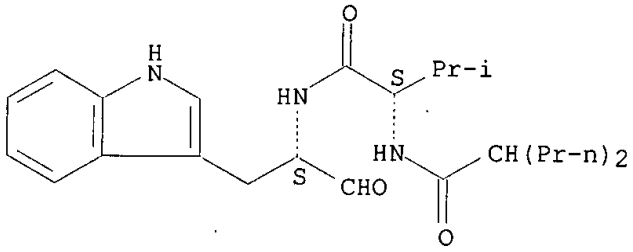
RN 161709-85-9 HCAPLUS
CN Benzamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



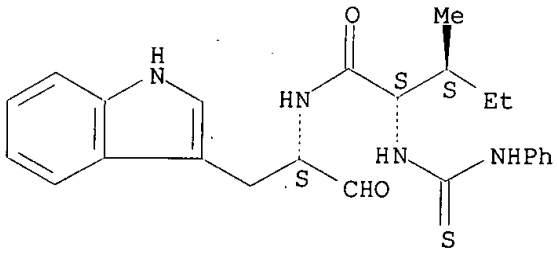
RN 161709-86-0 HCAPLUS
CN Pentanamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-2-propyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



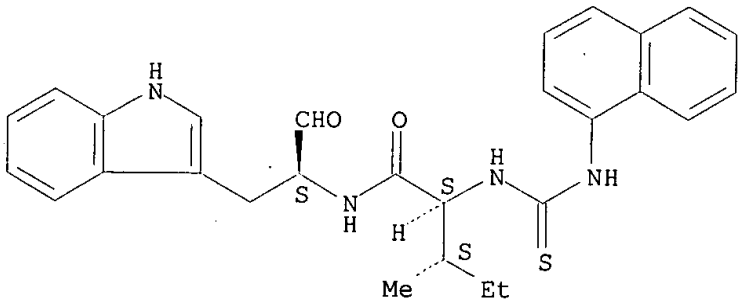
RN 161709-88-2 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[(phenylamino)thioxomethyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



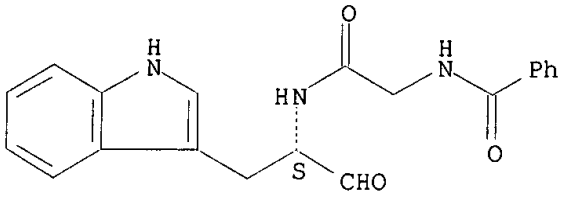
RN 161709-89-3 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[[(1-naphthalenylamino)thioxomethyl]amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



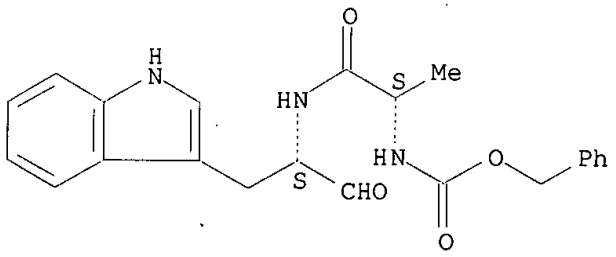
RN 161709-90-6 HCAPLUS
CN Benzamide, N-[2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxoethyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



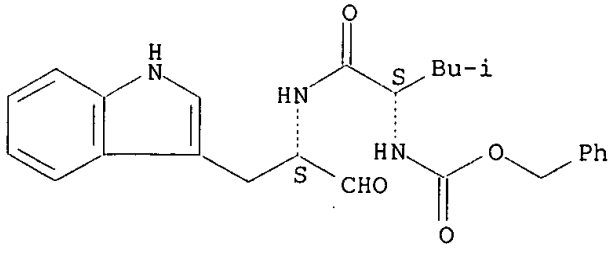
RN 161709-91-7 HCAPLUS
CN Carbamic acid, [2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-1-methyl-2-oxoethyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



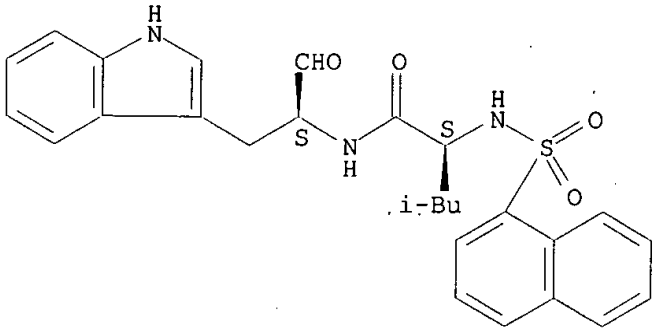
RN 161709-92-8 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



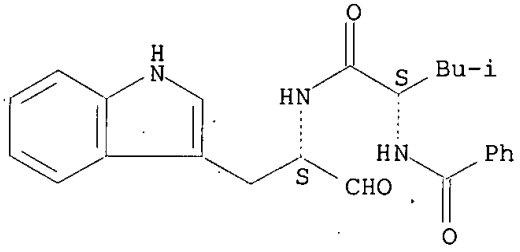
RN 161709-93-9 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]-4-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



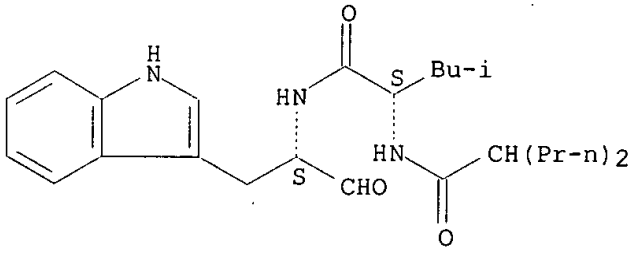
RN 161709-94-0 HCAPLUS
CN Benzamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



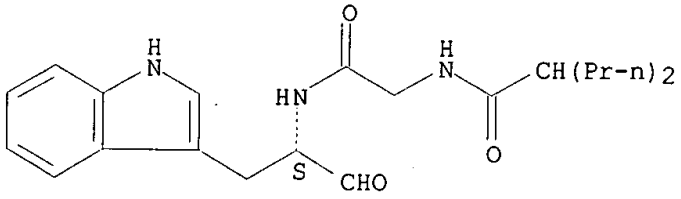
RN 161709-95-1 HCAPLUS
CN Pentanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-4-methyl-2-[(1-oxo-2-propylpentyl)amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



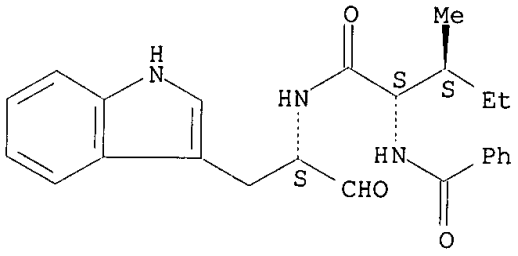
RN 161709-96-2 HCAPLUS
CN Pentanamide, N-[2-[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]-2-oxoethyl]-2-propyl-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



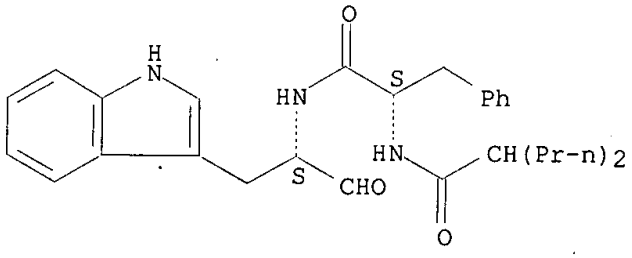
RN 161709-97-3 HCAPLUS
CN Benzamide, N-[(1S,2S)-1-[[[(1S)-1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



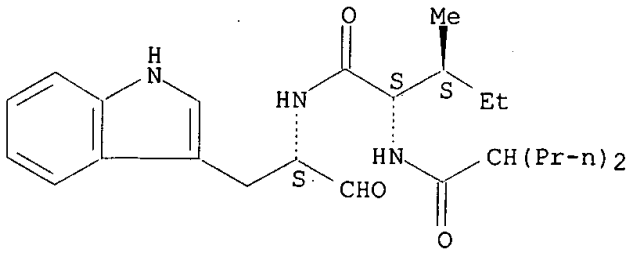
RN 161709-99-5 HCAPLUS
CN Benzenepropanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-.alpha.-[(1-oxo-2-propylpentyl)amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161710-00-5 HCAPLUS
CN Pentanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(1-oxo-2-propylpentyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

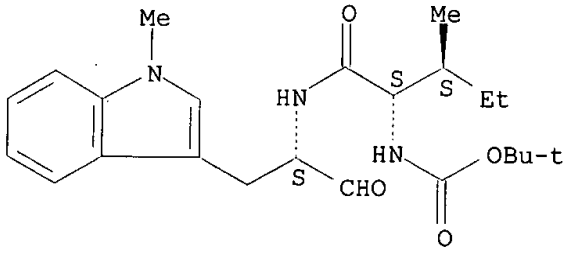
Absolute stereochemistry.



RN 161710-01-6 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-(1-methyl-1H-indol-3-

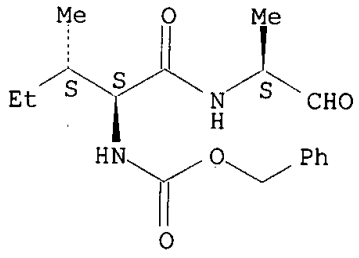
yl)ethyl]amino]carbonyl]-2-methylbutyl]-, 1,1-dimethylethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



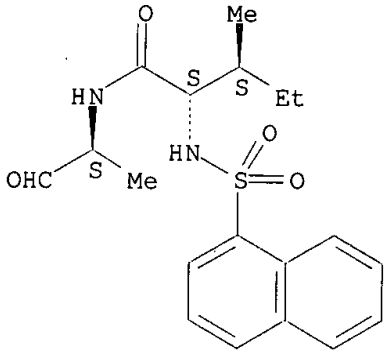
RN 161710-02-7 HCAPLUS
CN Carbamic acid, [2-methyl-1-[[(1-methyl-2-oxoethyl)amino]carbonyl]butyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



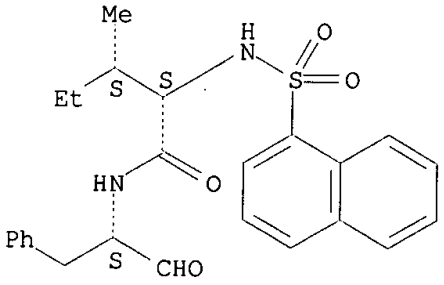
RN 161710-03-8 HCAPLUS
CN Pentanamide, 3-methyl-N-[(1S)-1-methyl-2-oxoethyl]-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



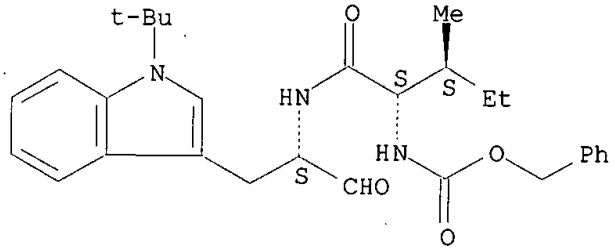
RN 161710-04-9 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-phenylethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



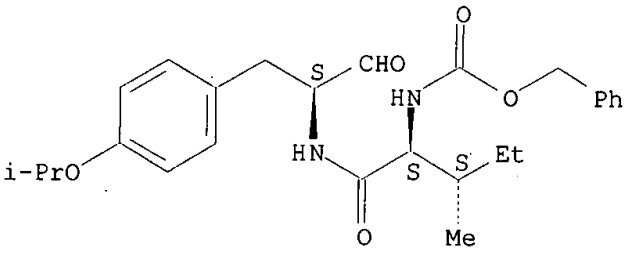
RN 161710-05-0 HCAPLUS
CN Carbamic acid, [1-[[[2-[1-(1,1-dimethylethyl)-1H-indol-3-yl]-1-formylethyl]amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



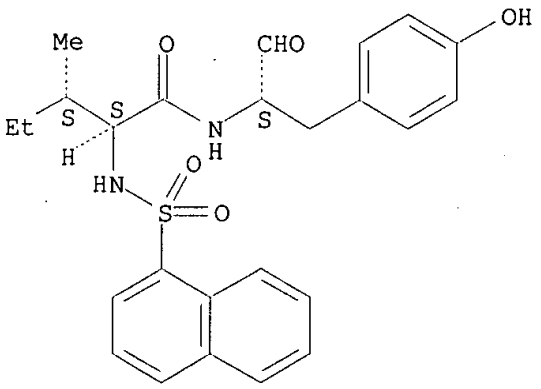
RN 161710-06-1 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-[4-(1-methylethoxy)phenyl]ethyl]amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



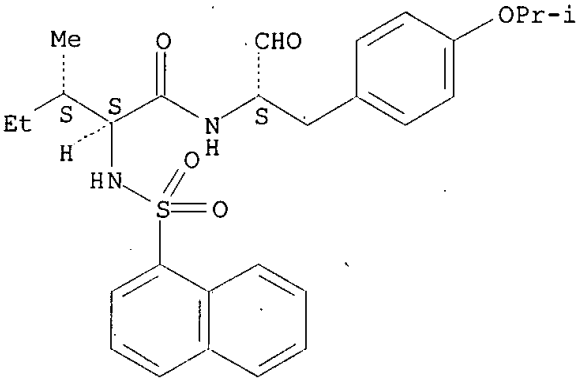
RN 161710-07-2 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-(4-hydroxyphenyl)ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



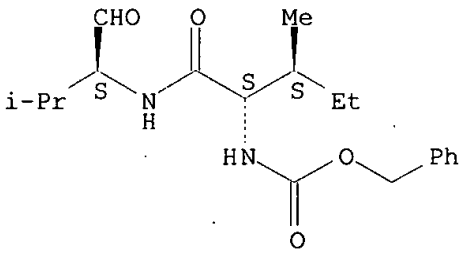
RN 161710-08-3 HCAPLUS
CN Pentanamide, N-[1-formyl-2-[4-(1-methylethoxy)phenyl]ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(R*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



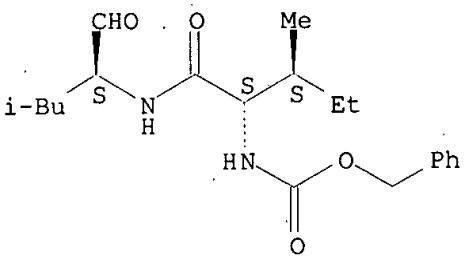
RN 161710-09-4 HCAPLUS
CN Carbamic acid, [1-[[(1-formyl-2-methylpropyl)amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



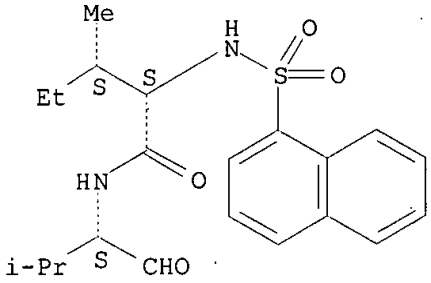
RN 161710-10-7 HCAPLUS
CN Carbamic acid, [1-[[(1-formyl-3-methylbutyl)amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



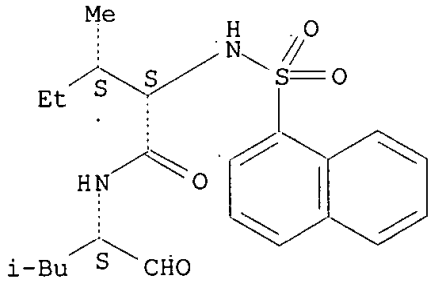
RN 161710-11-8 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-2-methylpropyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



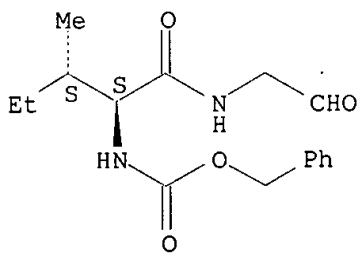
RN 161710-12-9 HCAPLUS
CN Pentanamide, N-[(1S)-1-formyl-3-methylbutyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, (2S,3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



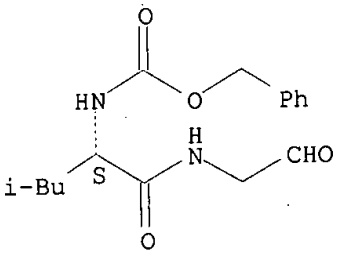
RN 161710-13-0 HCAPLUS
CN Carbamic acid, [2-methyl-1-[[(2-oxoethyl)amino]carbonyl]butyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



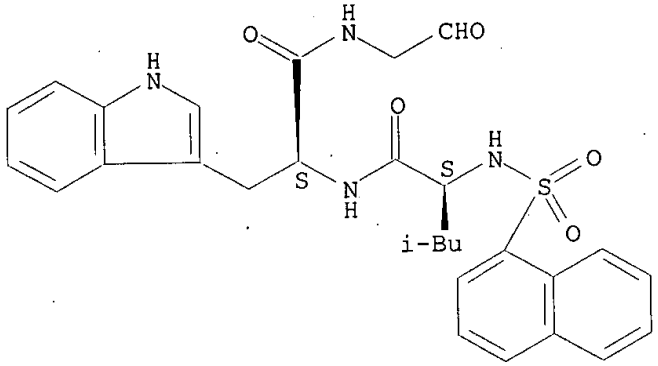
RN 161710-20-9 HCAPLUS
CN Carbamic acid, [(1S)-3-methyl-1-[[(2-oxoethyl)amino]carbonyl]butyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



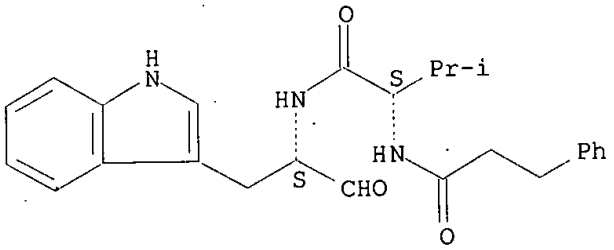
RN 161710-21-0 HCAPLUS
CN L-Tryptophanamide, N-(1-naphthalenylsulfonyl)-L-leucyl-N-(2-oxoethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



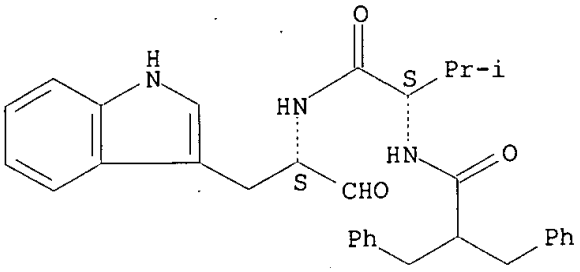
RN 161710-27-6 HCAPLUS
CN Benzenepropanamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



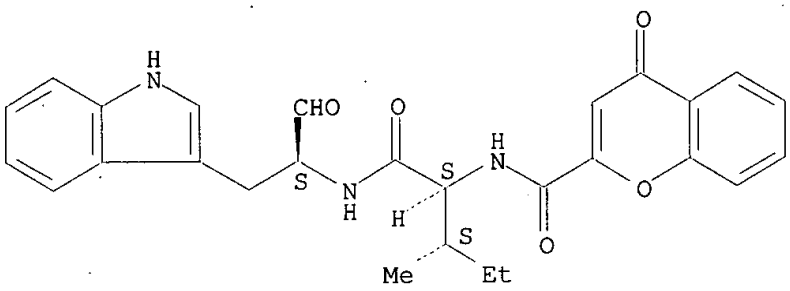
RN 161710-28-7 HCAPLUS
CN Benzenepropanamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylpropyl]-.alpha.-(phenylmethyl)-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



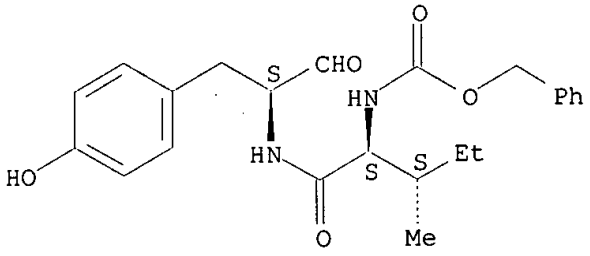
RN 161710-38-9 HCAPLUS
CN 4H-1-Benzopyran-2-carboxamide, N-[1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]-4-oxo-, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



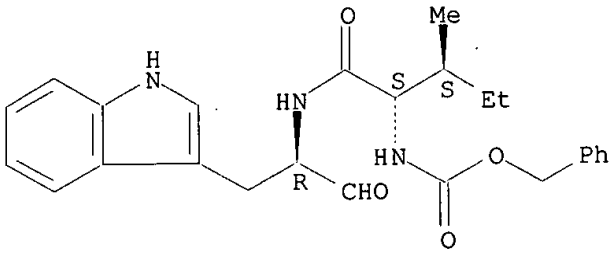
RN 161813-78-1 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-(4-hydroxyphenyl)ethyl]amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



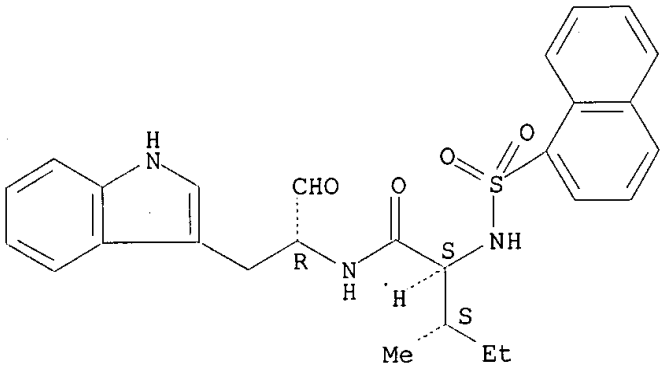
RN 161813-79-2 HCAPLUS
CN Carbamic acid, [1-[[[1-formyl-2-(1H-indol-3-yl)ethyl]amino]carbonyl]-2-methylbutyl]-, phenylmethyl ester, [1S-[1R*(S*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 161813-80-5 HCAPLUS
CN Pentanamide, N-[1-formyl-2-(1H-indol-3-yl)ethyl]-3-methyl-2-[(1-naphthalenylsulfonyl)amino]-, [2S-[1(S*),2R*,3R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1994:400894** HCAPLUS
DN **121:894**
TI Peptides or their salts having transforming growth factor (TGF)-.beta.-like activity
IN Tanihara, Masao; Fujiwara, Che
PA Kuraray Co, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM C07K007-08
ICS C07K007-06; C07K007-10
ICA A61K037-02
ICI C07K099-00
CC 1-7 (**Pharmacology**)
Section cross-reference(s): 34
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06025288	A2	19940201	JP 1992-207501	19920710 <--
PRAI	JP 1992-207501		19920710 <--		

OS MARPAT 121:894
AB H-X1-Ala-X2-Pro-Cys-Cys-Val-X3-Gln-X4-Leu-Glu-X5-Y [X2 = Ser, Ala; X3 = Ser, Pro; X4 = Ala, Asp; X1, X5 = single bond, peptide fragment having 1-5 amino acid residue(s) chosen from Gly, Ala, Val, Arg, Asn, Ser, Phe, Pro, Leu, Glu, Asp, Lys, Thr, His, Tyr, Nle, and Ile; Y = OH, NH2], having TGF-.beta.-like activity, are useful for treatment of **fractures**, wounds, rheumatoid arthritis, **osteoarthritis**,

osteoporosis, periodontitis, multiple sclerosis, etc. Asn-Pro-Gly-Ala-Ser-Ala-Ala-Pro-Cys-Cys-Val-Pro-Gln-Ala-Leu-Glu (prepn. given) (at 100 .mu.g/mL) inhibited the growth of Con A-stimulated murine spleen cells by 60%, vs. 85%, for TGF-.beta..

ST peptide transforming growth factor beta like; TGF beta like peptide therapeutic; **fracture** wound treatment peptide prepn; rheumatoid arthritis **osteoporosis** treatment peptide; **osteoarthritis** periodontitis treatment peptide; multiple sclerosis treatment peptide

IT Peptides, biological studies
RL: BIOL (Biological study)
(TGF-.beta.-like, for therapeutics)

IT Immunosuppressants
Wound healing promoters
(peptides having transforming growth factor-.beta.-like activities as)

IT Multiple sclerosis
Osteoporosis
(treatment of, peptides having transforming growth factor-.beta.-like activities for)

IT Inflammation inhibitors
(antiarthritics, peptides having transforming growth factor-.beta.-like activities for)

IT Inflammation inhibitors
(antirheumatics, peptides having transforming growth factor-.beta.-like activities for)

IT **Periodontium**
(disease, periodontitis, treatment of, peptides having transforming growth factor-.beta.-like activities for)

IT **Bone, disease**
(**fracture**, treatment of, peptides having transforming growth factor-.beta.-like activities for)

IT Animal growth regulators
RL: BIOL (Biological study)
(.beta.-transforming growth factors, peptides having activities like, for therapeutics)

IT 3978-80-1, N-(tert-Butoxycarbonyl)-L-tyrosine 4530-20-5 7536-55-2, N-(tert-Butoxycarbonyl)-L-asparagine 13139-15-6, N-(tert-Butoxycarbonyl)-L-leucine 13139-16-7, N-(tert-Butoxycarbonyl)-L-isoleucine 13574-13-5 13726-67-5, N-(tert-Butoxycarbonyl)-L-aspartic acid 13726-85-7, N.alpha.-(tert-Butoxycarbonyl)-L-glutamine 13734-41-3, N-(tert-Butoxycarbonyl)-L-valine 15761-38-3, N-(tert-Butoxycarbonyl)-L-alanine 15761-39-4, N-(tert-Butoxycarbonyl)-L-proline 18942-46-6, N-(tert-Butoxycarbonyl)-S-(p-methoxybenzyl)-L-cysteine 23680-31-1, N-(tert-Butoxycarbonyl)-O-benzyl-L-serine **47355-10-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of)

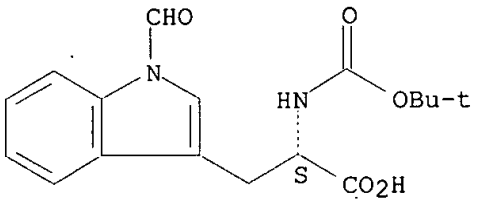
IT 155566-20-4P 155566-21-5P 155566-22-6P 155566-23-7P 155566-24-8P 155606-60-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and transforming growth factor-.beta.-like activities of)

IT **47355-10-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of)

RN 47355-10-2 HCAPLUS

CN L-Tryptophan, N-[(1,1-dimethylethoxy)carbonyl]-1-formyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1994:144197** HCAPLUS
DN **120:144197**
TI Sustained-release microcapsules containing **bone** absorption-inhibiting peptides
IN Yamada, Minoru; Kamei, Shigeru; Ogawa, Tairyo
PA Takeda Chemical Industries Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM A61K009-52
ICS A61K037-02; A61K037-24; A61K037-30; A61K047-34
CC 63-6 (**Pharmaceuticals**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05294826	A2	19931109	JP 1992-97961	19920417 <--
PRAI JP 1992-97961		19920417 <--		

AB Sustained-release microcapsules, useful for treatment of **osteoporosis**, contain **bone** absorption-inhibiting oligopeptides or their salts in biodegradable aliph. polyesters. Arg-Thr-Arg-Ser-Ala-Trp (I) (40 mg) (prepn. by a peptide synthesizer given) was microencapsulated with 1 g poly(L-lactic acid) (prepn. given) and 1 g glycolic acid-2-hydroxybutyric acid copolymer (prepn. given). The microcapsules were put into a phosphate buffer (pH 7.0) to show residual I of 61.1% 1 day later and 20.2% 3 wk later.
ST sustained release microcapsule peptide polyester; **osteoporosis** treatment peptide sustained release
IT Polyesters, biological studies
RL: BIOL (Biological study)
(biodegradable, microcapsules contg. oligopeptides and, sustained-release, for **osteoporosis** treatment)
IT Peptides, biological studies
RL: BIOL (Biological study)
(microcapsules contg. biodegradable polyesters and, sustained-release, for **osteoporosis** treatment)
IT **Osteoporosis**
(treatment of, microcapsules contg. oligopeptides and biodegradable polyesters for, sustained-release)
IT Encapsulation
(micro-, of oligopeptides, with biodegradable polyesters, for sustained-release prepns. for **osteoporosis** treatment)
IT Pharmaceutical dosage forms
(microcapsules, oligopeptides, contg. biodegradable polyesters, sustained-release, for **osteoporosis** treatment)
IT 13836-37-8 15260-10-3 15761-38-3 23680-31-1 **47355-10-2D**, PAM resin-bound
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of)
IT 138949-73-2P
RL: PREP (Preparation)

(prepn. of, microcapsules contg. biodegradable polyesters and, sustained-release, for **osteoporosis** treatment)

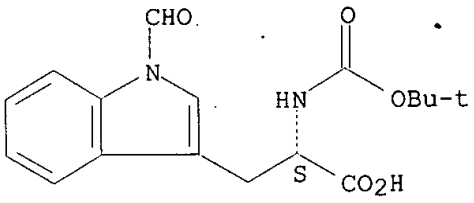
IT 143909-76-6P
RL: PREP (Preparation)
(prepn. of, microcapsules contg. biodegradable polyesters and, sustained-release, for osteporosis treatment)

IT 26161-42-2P, L-Lactic acid homopolymer, sru 26811-96-1P, L-Lactic acid homopolymer 138693-13-7P
RL: PREP (Preparation)
(prepn. of, microcapsules contg. oligopeptides and, sustained-release, for **osteoporosis** treatment)

IT **47355-10-2D**, PAM resin-bound
RL: RCT (Reactant); RACT (Reactant or reagent)
(peptide coupling of)

RN 47355-10-2 HCAPLUS
CN L-Tryptophan, N-[(1,1-dimethylethoxy)carbonyl]-1-formyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1993:671732** HCAPLUS
DN **119:271732**
TI Preparation of dipeptide derivatives for treatment of **bone** disease
IN Higuchi, Naoki; Saitoh, Masayuki; Niwata, Shinjiro; Kiso, Yoshinobu; Hayashi, Yasuhiro
PA Suntory, Ltd., Japan
SO Eur. Pat. Appl., 36 pp.
CODEN: EPXXDW
DT **Patent**
LA English
IC ICM C07C271-20
ICS A61K031-27; C07C281-10; C07D235-14; A61K031-415; C07D317-28; A61K031-335; C07D339-06; C07D339-08; C07D277-04; C07C237-22
CC 34-3 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **1**

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 543310	A2	19930526	EP 1992-119558	19921116 <--
	EP 543310	A3	19930721		
	EP 543310	B1	19960327		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 05140063	A2	19930608	JP 1991-303351	19911119 <--
	US 5395824	A	19950307	US 1992-969453	19921030 <--
	AT 136025	E	19960415	AT 1992-119558	19921116 <--
PRAI	JP 1991-303351		19911119 <--		

OS MARPAT 119:271732
AB R1NHCHR2CONHCHR3R4 [R1 = (halo-substituted) aliph. acyl, PhCH2O2C; R2 = (ar)alkyl; R3 = (ar)alkyl, methylthioethyl; R4 = CHO, (substituted) aliph. acyl, dialkoxymethyl, diacyloxymethyl, hydroxyiminomethyl, ureidoiminomethyl, benzimidazol-2-yl, etc.; when R3 = Bu, R4 .noteq. CHO],

were prepd. Thus, N-acetylleucine 1-formylpentylamide (prepn. given) was stirred with 4-MeC6H4SO3H in EtOH to give N-acetylleucine (1-diethoxymethyl)pentylamide. This at 40 mg/kg i.p. in rats posttreated with PTHrp(1-34) gave a blood Ca concn. of 9.67 mg/dL, vs. 10.79 mg/dL for PTHrp(1-34)-treated controls.

ST peptide prepn **bone** disease treatment; **bone** disease treatment dipeptide analog; **osteoporosis** treatment dipeptide analog; malignant hypercalcemia treatment dipeptide analog; pages disease treatment dipeptide analog

IT **Osteoporosis**
(treatment, dipeptide derivs. for)

IT **Bone, disease**
(Paget's, treatment, dipeptide derivs. for)

IT Peptides, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(di-, analogs, prepn. of, for treatment of **bone** disease)

IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(malignant hypercalcemia, treatment of, dipeptide derivs. for)

IT 3504-37-8P 4817-98-5P 38155-10-1P 66863-71-6P 73586-49-9P 97393-64-1P **117591-20-5P** 117592-14-0P 117611-44-6P 123281-10-7P 127478-46-0P 151275-94-4P 151275-95-5P 151275-96-6P 151275-97-7P 151275-98-8P 151275-99-9P 151276-00-5P 151276-01-6P 151276-02-7P 151276-03-8P 151276-04-9P 151276-05-0P 151307-01-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for dipeptide analog for treatment of **bone** disease)

IT **52616-40-7P 134865-05-7P** 144248-90-8P 151275-56-8P 151275-57-9P 151275-58-0P 151275-59-1P 151275-60-4P 151275-61-5P 151275-62-6P 151275-63-7P 151275-64-8P 151275-65-9P 151275-66-0P 151275-67-1P 151275-68-2P 151275-69-3P 151275-70-6P 151275-71-7P 151275-72-8P 151275-73-9P 151275-74-0P 151275-75-1P 151275-76-2P 151275-77-3P 151275-78-4P 151275-79-5P 151275-80-8P 151275-81-9P 151275-82-0P 151275-83-1P 151275-84-2P 151275-85-3P 151275-86-4P **151275-87-5P** 151275-88-6P 151275-89-7P 151275-90-0P 151275-91-1P 151275-92-2P 151275-93-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for treatment of **bone** disease)

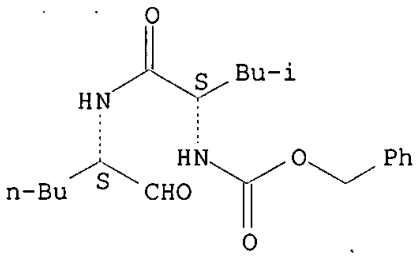
IT 60-23-1, 2-Aminoethanethiol 60-24-2, Mercaptoethanol 79-03-8, Propionyl chloride 79-04-9, Chloroacetyl chloride 79-30-1, Isobutyryl chloride 95-54-5, o-Phenylenediamine, reactions 107-21-1, 1,2-Ethanediol, reactions 109-80-8, 1,3-Propanedithiol 109-92-2, Ethyl vinyl ether 141-75-3, Butyryl chloride 141-78-6, Ethyl acetate, reactions 156-57-0, 2-Aminoethanethiol hydrochloride 383-64-2 540-63-6, 1,2-Ethanedithiol 563-41-7, Semicarbazide hydrochloride 667-27-6, Ethyl bromodifluoroacetate 1161-13-3 1188-21-2 2018-66-8 2491-18-1 3844-54-0 7517-19-3 7524-50-7 18598-74-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of dipeptide analog for treatment of **bone** disease)

IT **117591-20-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for dipeptide analog for treatment of **bone** disease)

RN 117591-20-5 HCAPLUS

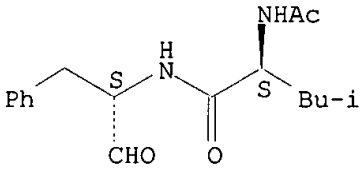
CN Carbamic acid, [(1S)-1-[[[(1S)-1-formylpentyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



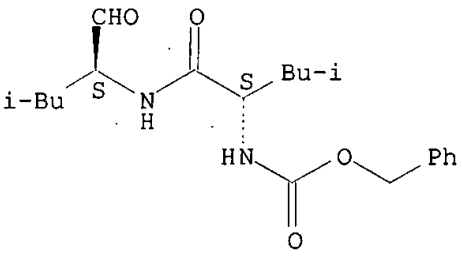
IT **52616-40-7P 134865-05-7P 151275-87-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, for treatment of **bone** disease)
RN 52616-40-7 HCAPLUS
CN Pentanamide, 2-(acetylamino)-N-(1-formyl-2-phenylethyl)-4-methyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



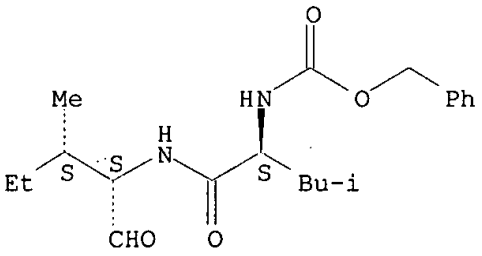
RN 134865-05-7 HCAPLUS
CN Carbamic acid, [(1S)-1-[[[(1S)-1-formyl-3-methylbutyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 151275-87-5 HCAPLUS
CN Carbamic acid, [1-[[(1-formyl-2-methylbutyl)amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester, [1S-[1R*(R*),2R*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



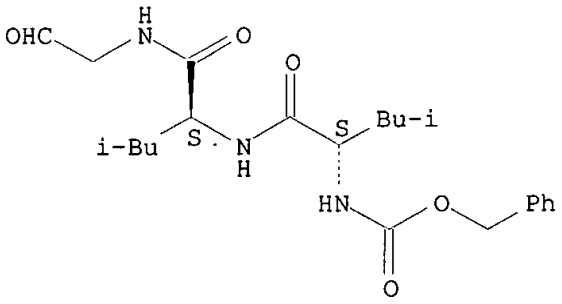
L125 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1993:225690** HCAPLUS
DN **118:225690**
TI Tripeptides as promoters for calcification of **osteoblasts**
IN Koshihara, Yasuko; Ito, Takashi
PA Shionogi and Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT **Patent**
LA Japanese
IC ICM A61K037-02
ICS A61K037-02
ICA C07K005-06
CC 1-10 (**Pharmacology**)
Section cross-reference(s): 34
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05000965	A2	19930108	JP 1991-177514	19910620 <--
PRAI JP 1991-177514		19910620 <--		

OS MARPAT 118:225690
AB R-Leu-Leu-NHCH2CHO (R = protecting group for amino acid) are useful for acceleration of **osteoblast** calcification and treatment of **osteoporosis**. Human **osteoblasts** were cultured with 10-7M Z-Leu-Leu-NHCH2CHO (prepn. given) for 30 days to show 8.69 .mu.g Ca/well, vs. 6.29 .mu.g Ca/well, for the controls.
ST **osteoporosis** treatment tripeptide; **osteoblast** calcification accelerator peptide
IT **Osteoblast**
(calcification in, acceleration of, tripeptides for)
IT **Osteoporosis**
(treatment of, tripeptides for)
IT 1138-80-3P, Benzyloxycarbonylglycine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and esterification of, with methanol)
IT **134865-03-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **osteoblast** calcification-accelerating activity of)
IT 7517-19-3P, Leucine methyl ester hydrochloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and peptide coupling of, with benzyloxycarbonylleucine)
IT 2018-66-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and peptide coupling of, with leucine Me ester hydrochloride)
IT 1212-53-9P, Benzyloxycarbonylglycine methyl ester 20777-79-1P 146556-31-2P 146556-33-4P 147637-11-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of)
IT 3504-37-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with hydrazine)
IT 501-53-1, Benzyloxycarbonyl chloride
RL: BIOL (Biological study)
(protection by, of amino acids)
IT 56-40-6, Glycine, biological studies
RL: BIOL (Biological study)

(protection of, by benzyloxycarbonyl chloride)
IT 61-90-5, Leucine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, for tripeptide prepn.)
IT 104-15-4, p-Toluenesulfonic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with glycine deriv.)
IT **134865-03-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and **osteoblast** calcification-accelerating activity of)
RN 134865-03-5 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-(2-oxoethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1992:658229** HCAPLUS
DN **117:258229**
TI Prophylactic and therapeutic agents for **bone** diseases comprising di- or tripeptide derivatives as active ingredients
IN Kiso, Yoshinobu; Hayashi, Yasuhiro; Higuchi, Naoki; Saitoh, Masayuki; Hashimoto, Masaki
PA Suntory, Ltd., Japan
SO Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DT **Patent**
LA English
IC ICM A61K037-02
ICS C07K005-08
CC 63-6 (**Pharmaceuticals**)
Section cross-reference(s): **1**
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 504938	A2	19920923	EP 1992-104920	19920320 <--
	EP 504938	A3	19930414		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
	JP 05155764	A2	19930622	JP 1991-59182	19910322 <--
	JP 05178758	A2	19930720	JP 1991-59185	19910322 <--
PRAI	JP 1991-59182		19910322 <--		
	JP 1991-59185		19910322 <--		

OS MARPAT 117:258229
AB Pharmaceutical compns. contg. R1NR2CHR3CONHCHR4COXH (R1=C2-10 acyl, C4-15 cyclic or bridged cyclic alkyloxycarbonyl, benzyloxycarbonyl, 2,2,2,-trichloroethyloxycarbonyl, etc.; R2 is H, and forms a phthaloyl group with R1; R3= iso-Bu, Bu, iso-Pr; R4=butyl, iso-Bu; X = a bond, a methionine residue, a leucine or norleucine residue; H at C-terminal means

that a carboxyl is reduced to aldehyde) are useful for preventing or treating malignant hypercalcemia, **bone** Paget's disease or **osteoporosis**. N-Acetyl-leucyl-leucyl-norleucinal (I) at 40 mg/kg orally decreased hypercalcemia that had been induced by parathyroid hormone-related protein (1-34 amino acid residues). The blood Ca concn. was decreased from 10.33 to 9.49mg/dL. A tablet contained I 200, microcryst. cellulose 45, Mg stearate 5mg.

ST peptide hypercalcemia Paget disease **osteoporosis**

IT Pharmaceutical dosage forms
(di- or tripeptide derivs. in, for treatment of **bone** diseases)

IT **Bone, disease**
Hyperparathyroidism
Osteoporosis
(treatment of, with pharmaceutical compn. contg. di- or tripeptide derivs.)

IT **Bone, disease**
(Paget's, treatment of, with pharmaceutical compn. contg. di- or tripeptide derivs.)

IT 7440-70-2, Calcium, biological studies
RL: BIOL (Biological study)
(metabolic disorders, hypercalcemia, treatment of, peptides for)

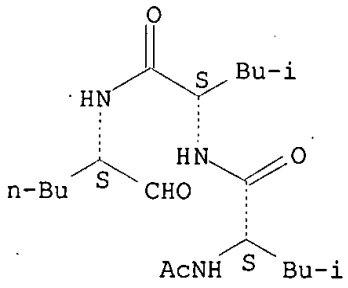
IT **110044-82-1**, N-Acetyl-leucyl-leucyl-norleucinal
110115-07-6 117591-20-5 117592-16-2
132123-60-5 132123-61-6 132123-62-7
132123-63-8 132123-64-9 132123-65-0
132123-67-2 132123-68-3 132123-69-4
132123-70-7 132123-71-8 132123-73-0
132123-74-1 132123-75-2 132123-76-3
132176-63-7 133407-83-7, N-Benzyloxycarbonyl-leucyl-leucyl-norleucinal 144583-18-6 **144830-87-5**, N-Acetyl-leucyl-leucyl-leucinal
RL: BIOL (Biological study)
(pharmaceutical compn. contg., for treatment of **bone** diseases)

IT **110044-82-1**, N-Acetyl-leucyl-leucyl-norleucinal
110115-07-6 117591-20-5 117592-16-2
132123-60-5 132123-61-6 132123-62-7
132123-63-8 132123-64-9 132123-65-0
132123-67-2 132123-68-3 132123-69-4
132123-70-7 132123-71-8 132123-73-0
132123-74-1 132123-75-2 132123-76-3
132176-63-7 133407-83-7, N-Benzyloxycarbonyl-leucyl-leucyl-norleucinal **144830-87-5**, N-Acetyl-leucyl-leucyl-leucinal
RL: BIOL (Biological study)
(pharmaceutical compn. contg., for treatment of **bone** diseases)

RN 110044-82-1 HCAPLUS

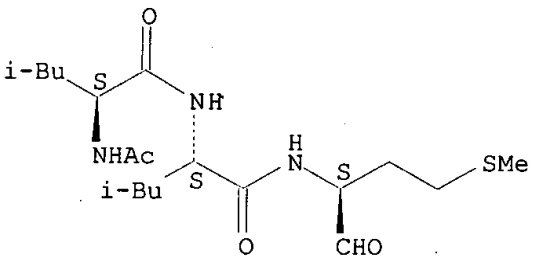
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formylpentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



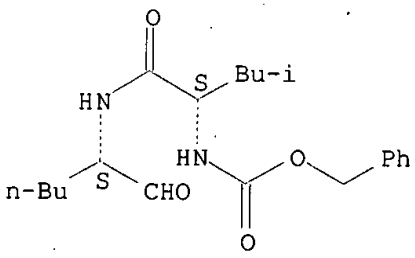
RN 110115-07-6 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formyl-3-(methylthio)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



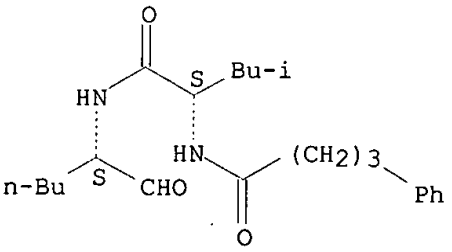
RN 117591-20-5 HCAPLUS
CN Carbamic acid, [(1S)-1-[[[(1S)-1-formylpentyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



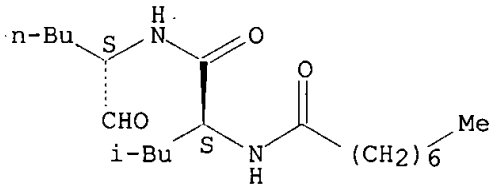
RN 117592-16-2 HCAPLUS
CN Benzenebutanamide, N-[1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



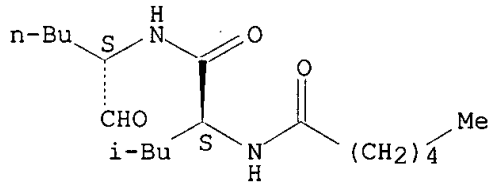
RN 132123-60-5 HCAPLUS
CN Octanamide, N-[1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



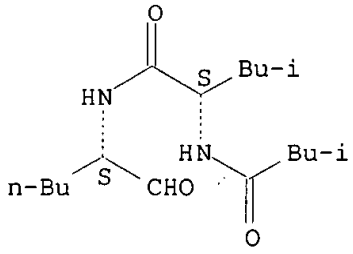
RN 132123-61-6 HCAPLUS
CN Hexanamide, N-[1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



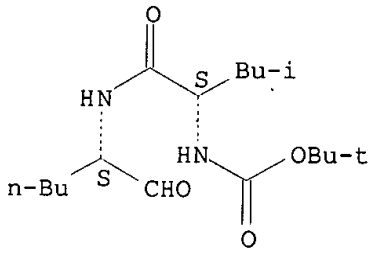
RN 132123-62-7 HCAPLUS
CN Pentanamide, N-(1-formylpentyl)-4-methyl-2-[(3-methyl-1-oxobutyl)amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

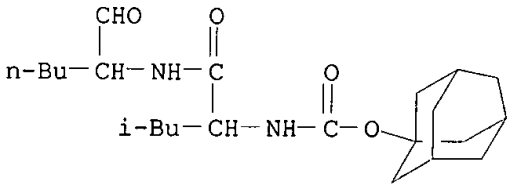


RN 132123-63-8 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, 1,1-dimethylethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

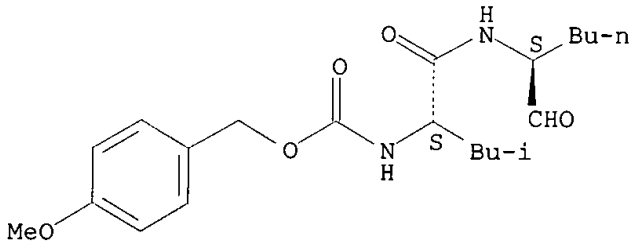


RN 132123-64-9 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, tricyclo[3.3.1.13,7]dec-1-yl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)



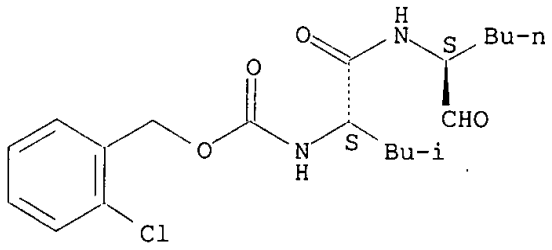
RN 132123-65-0 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, (4-methoxyphenyl)methyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



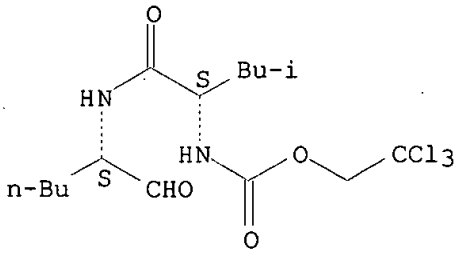
RN 132123-67-2 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, (2-chlorophenyl)methyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



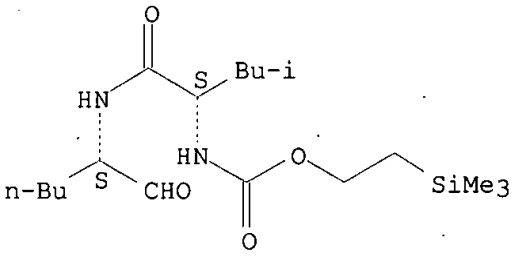
RN 132123-68-3 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, 2,2,2-trichloroethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



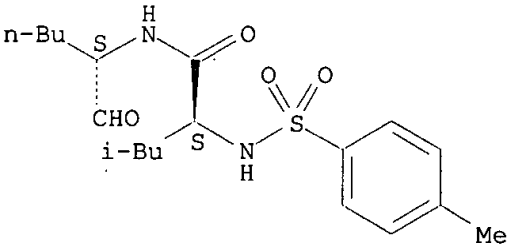
RN 132123-69-4 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, 2-(trimethylsilyl)ethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



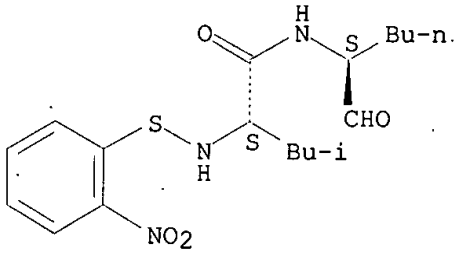
RN 132123-70-7 HCAPLUS
CN Pentanamide, N-(1-formylpentyl)-4-methyl-2-[[(4-methylphenyl)sulfonyl]amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



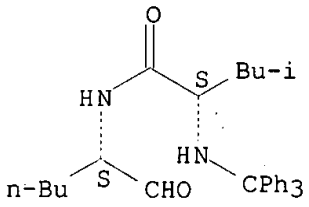
RN 132123-71-8 HCAPLUS
CN Pentanamide, N-(1-formylpentyl)-4-methyl-2-[[(2-nitrophenyl)thio]amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



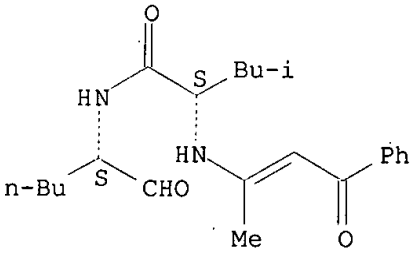
RN 132123-73-0 HCAPLUS
CN Pentanamide, N-(1-formylpentyl)-4-methyl-2-[(triphenylmethyl)amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



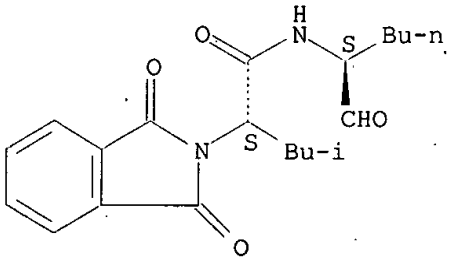
RN 132123-74-1 HCAPLUS
CN Pentanamide, N-(1-formylpentyl)-4-methyl-2-[(1-methyl-3-oxo-3-phenyl-1-propenyl)amino]-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 132123-75-2 HCAPLUS
CN 2H-Isoindole-2-acetamide, 1,3-dihydro-N-(1-formylpentyl)-.alpha.-(2-methylpropyl)-1,3-dioxo-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

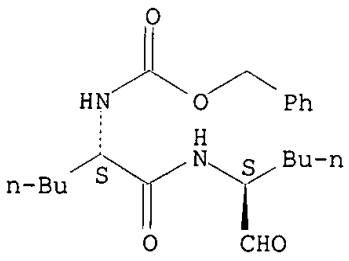
Absolute stereochemistry.



RN 132123-76-3 HCAPLUS

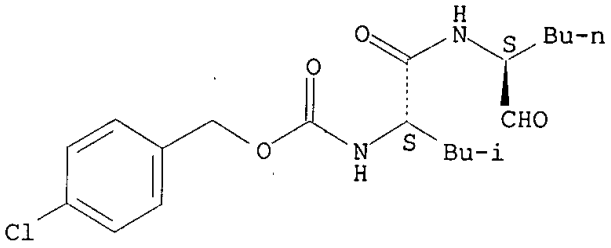
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]pentyl]-, phenylmethyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



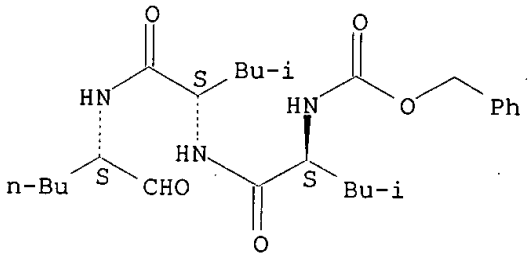
RN 132176-63-7 HCAPLUS
CN Carbamic acid, [1-[[(1-formylpentyl)amino]carbonyl]-3-methylbutyl]-, (4-chlorophenyl)methyl ester, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



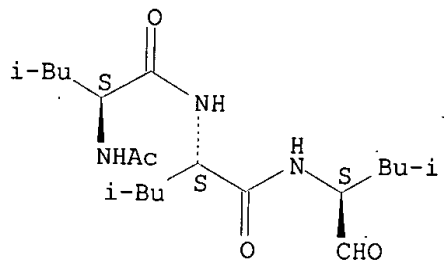
RN 133407-83-7 HCAPLUS
CN L-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formylpentyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 144830-87-5 HCAPLUS
CN L-Leucinamide, N-acetyl-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L125 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2003 ACS
AN **1982:506621** HCAPLUS
DN **97:106621**
TI Vitro cellular interaction with amnion membrane substrate
IN Russo, Raimondo
PA United States Dept. of Health and Human Services, USA
SO U. S. Pat. Appl., 22 pp. Avail. NTIS Order No. PAT-APPL-6-314 477.
CODEN: XAXXAV
DT **Patent**
LA English
CC 9-10 (Biochemical Methods)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 314477	A0	19820618	US 1981-314477	19811023 <--
	US 4446234	A	19840501		
PRAI	US 1981-314477		19811023 <--		

AB The applications are described of human amnion to the study of cell interactions with tissue barriers and as a substrate for cell culture. Details are given of the construction of 2-compartment amnion chambers in the form of 2 Lucite rings. Such chambers were used for bioassay of chemotactic factors with polymorphonuclear leukocytes, tumor cell migration assays, and tumor cell degrdn. activity detn. In addn., hepatocyte preferential attachment to whole amnion basement membrane surface was demonstrated.
ST amnion cell tissue interaction bioassay; tissue culture amnion substrate
IT Animal tissue culture
(amnion of human as substrate for)
IT Animal tissue
(cell interactions with, human amnion in study of)
IT Neoplasm
(degradative enzyme activity and migration detn. of, amnion as substrate for)
IT Enzymes
RL: ANST (Analytical study)
(detn. of degradative activity of, of tumor cells, amnion as substrate for)
IT Carcinoma
Melanoma
Sarcoma
(migration of cells of, through amnion)
IT Amnion
(of substrate, in cell-tissue interactions studies and tissue culture, of human)
IT Animal cell
(tissue interactions with, human amnion in study of)
IT Lymphokines and Cytokines
RL: ANT (Analyte); ANST (Analytical study)
(chemotactic factors, detn. of, by bioassay, human amnion as substrate for)

IT Liver
(hepatocyte, basement membrane of human amnion as substrate for culture of)
IT Mammary gland
(neoplasm, carcinoma, migration of cells of, through amnion)
IT Leukocyte
(polymorphonuclear, migration of, through amnion in bioassay for chemotactic factors)
IT **Bone, neoplasm**
(sarcoma, migration of cells of, through amnion)
IT **59880-97-6**
RL: ANST (Analytical study)
(chemotactic activity detn. of, amnion as substrate for)
IT **59880-97-6**
RL: ANST (Analytical study)
(chemotactic activity detn. of, amnion as substrate for)
RN 59880-97-6 HCAPLUS
CN L-Phenylalanine, N-formyl-L-methionyl-L-leucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.